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August 2012 Oil and Gas Lease Sale

Location: West Desert District
Salt Lake Field Office

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August 2012 Oil and Gas Lease Sale

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**August 2012 Oil and Gas Lease Sale
DOI-BLM-UT-W010-2012-0012-EA**

1.0 PURPOSE & NEED

1.1 Introduction

The Bureau of Land Management (BLM) has prepared this environmental assessment (EA) to disclose and analyze the environmental consequences of the sale of parcels during the August 2012 oil and gas lease sale and subsequent lease issuance to successful bidders. The EA is a site-specific analysis of potential impacts that could result from the implementation of a proposed action or alternatives to the proposed action. The EA assists the BLM in project planning and ensuring compliance with the National Environmental Policy Act (NEPA), and in making a determination as to whether any significant impacts could result from the analyzed actions. Significance is defined by NEPA and is found in regulation 40 Code of Federal Regulations (CFR) 1508.27. An EA provides evidence for determining whether to prepare an Environmental Impact Statement (EIS) or a statement of Finding of No Significant Impact (FONSI). If the decision maker determines that this project has significant impacts following the analysis in the EA, then an EIS would be prepared for the project. If not, a Decision Record (DR) may be signed for the EA approving the selected alternative, whether the proposed action or another alternative. A DR, including a FONSI statement, for this EA would document the reasons why implementation of the selected alternative would not result in significant environmental impacts (effects) beyond those already addressed in the Pony Express Resource Management Plan (PE RMP, BLM, 1990), as amended; Pony Express Resource Area RMP Oil and Gas Supplemental Environmental Assessment, 1988 (PE O&G Supplemental EA, 1989); and the Bear River East Oil and Gas Amendment (BREO&GA, BLM, 1994).

1.2 Background

The BLM policy is to make mineral resources available for use and to encourage their orderly development to meet national, regional, and local needs. This policy is based in various laws, including the Mineral Leasing Act of 1920 and the Federal Land Policy and Management Act of 1976. The Federal Onshore Oil and Gas Leasing Reform Act of 1987 (Sec. 5102(a)(b)(1)(A)) directs the BLM to conduct quarterly oil and gas lease sales in each state whenever eligible lands are available for leasing.

Expressions of Interest (EOI) to nominate parcels for leasing by the BLM are submitted by the public. From these EOIs, the BLM Utah State Office (UTSO) forwards a preliminary parcel list to the Salt Lake Field Office (SLFO) for review and processing. The SLFO determines whether or not the existing analyses in the land use plans, as amended provides an adequate basis for leasing oil and gas resources or that additional NEPA analysis is needed before making a leasing recommendation. In order to meet the requirements of Washington Office (WO) Instruction Memorandum (IM) 2010-117, in most instances an EA will be initiated for the parcels within the SLFO.

After the EA is complete, it and the unsigned FONSI are made available to the public along with the list of available lease parcels and stipulations for a 30-day public comment period on the UTSO Oil and Gas Leasing webpage¹ (webpage) and the Utah Environmental Notification Bulletin Board² (ENBB). After the end of the public comment period, the BLM analyzes and incorporates the comments where appropriate and changes to the document and/or lease parcels list are made, if necessary. The final parcel list with stipulations and notices is made available to the public through a Notice of Competitive Lease Sale which starts the protest period (30 days) with a copy of the EA and an unsigned FONSI. The protest period ends 60 days before the scheduled lease sale. The Utah BLM resolves any protests within the 60 days between the end of the protest period and the lease sale when possible. If any changes are needed to the parcels or stipulations/notices, an erratum is posted to the BLM website to notify the public of the change.

The parcels would be available for sale at an oral auction at the UTSO tentatively scheduled for August 21, 2012. If a parcel is not purchased at the lease sale by competitive bidding, it may still be leased within two years after the initial offering. A lease may be held for ten years, after which the lease expires unless oil or gas is produced in paying quantities. A producing lease can be held indefinitely by economic production.

A lessee must submit an Application for Permit to Drill (APD) (Form 3160-3) to the BLM for approval and must possess an approved APD prior to any surface disturbance in preparation for drilling. Any stipulations attached to the standard lease form must be complied with before an APD may be approved. Following BLM approval of an APD, a lessee may produce oil and gas from the well in a manner approved by BLM in the APD or in subsequent sundry notices. The operator must notify the appropriate authorized officer, 48 hours before starting any surface disturbing activity approved in the APD.

Standard lease terms provide for reasonable measures to minimize adverse impacts to specific resource values, land uses, or users (Standard Lease Terms are contained in Form 3100-11, Offer to Lease and Lease for Oil and Gas, U.S. Department of the Interior, BLM, June 1988 or later edition). Although once the lease has been issued, the lessee has the right to use as much of the leased land as necessary to explore for, drill for, extract, remove, and dispose of oil and gas deposits located under the leased lands. Operations must be conducted in a manner that avoids unnecessary or undue degradation of the environment and minimizes adverse impacts to the land, air, water, cultural, biological, and visual elements of the environment, as well as other land uses or users. Compliance with valid, nondiscretionary statutes (laws) is included in the standard lease terms and would apply to all lands and operations that are part of all of the alternatives.

Nondiscretionary actions include the BLM's requirements under federal environmental protection laws, such as the Clean Water Act, Clean Air Act, Endangered Species Act, National Historic Preservation Act, and Federal Land Policy Management Act, which are applicable to all actions on federal lands even though they are not reflected in the oil and gas stipulations in the RMP and would be applied to all potential leases regardless of their category. Also included in all leases are the two mandatory stipulations for the statutory protection of cultural resources (BLM Washington Office (WO) Instruction Memorandum (IM) 2005-003, Cultural Resources

¹ Accessed online at: http://www.blm.gov/ut/st/en/prog/energy/oil_and_gas/oil_and_gas_lease.html

² The ENBB is a BLM environmental information internet site and can be accessed online at: <https://www.blm.gov/ut/enbb/index.php>

and Tribal Consultation for Fluid Minerals Leasing) and threatened or endangered species (BLM WO IM 2002-174, Endangered Species Act Section 7 Consultation).

The preliminary parcel list originally contained 206 parcels. After an initial interdisciplinary review, 114 parcels were recommended for deferral because weather and time constraints precluded a full review, associated site visits and processing including stakeholder coordination. These parcels will be reviewed and processed by the SLFO resource specialists during fiscal year 2012 and analyzed as appropriate in a separate document. Subsequently, 68 additional parcels were deferred because they are located on lands determined to possess wilderness characteristics. This determination will require BLM to address the possibility of management of those characteristics during the land use planning process or develop a land use plan amendment to the existing land use plan. Since the SLFO is not currently involved in a land use plan revision or plan amendment, lands with wilderness characteristics are being exempted from leasing until one of these procedures are initiated and completed. One parcel was deferred (UT0812-129) because it was reviewed and found to occur within an area that possesses significant cave resources covered under the Federal Cave Resources Protection Act.

This EA has been prepared to disclose and analyze the environmental consequences of leasing 23 parcels (43,067.99 acres) located in the SLFO of the West Desert District to be included as part of a competitive oil and gas lease sale tentatively scheduled to occur August 21, 2012. For reference, Appendix A contains the August 2012 Oil and Gas Lease Sale Parcel List and Appendix B contains maps of the subject parcels.

Parcels UT0812-001 through UT0812-004 are split estate, where the minerals are federal and the surface estate is in private ownership.

1.3 Purpose and Need of the Proposed Action

The parcels proposed for leasing were nominated by the public. The need for the lease sale is to respond to the nomination requests. Offering parcels for competitive oil and gas leasing provides for the orderly development of fluid mineral resources under BLM's jurisdiction in a manner consistent with multiple use management and environmental consideration for the resources that may be present.

The purpose for analyzing the preliminary parcels for potential sale is to ensure that adequate provisions are included in the lease stipulations to protect public health and safety, and assure full compliance with the objectives of NEPA and other federal environmental laws and regulations designed to protect the environment and mandating multiple use of public lands. The BLM is required by law to review areas that have been nominated, and there has been ongoing interest in oil and gas exploration in the SLFO area. Oil and gas leasing is a principal use of the public lands as identified in Section 102(a)(12), 103(1) of the Federal Land Policy and Management Act of 1976 (FLPMA), and it is conducted to meet requirements of the Mineral Leasing Act of 1920, as amended, the Mining and Minerals Policy Act of 1970, and the Federal Onshore Oil and Gas Leasing Reform Act of 1987 (Reform Act). Leases would be issued pursuant to 43 CFR Subpart 3100.

1.4 Conformance with BLM Land Use Plan

The alternatives described below are in conformance with the PE RMP Record of Decision (BLM, 1990) and the BREO&GA Decision Record (BLM, 1994) because they are specifically provided for in the planning decisions. The PE RMP categorizes all lands in Salt Lake, Utah and Tooele counties that are available for leasing along with any applicable stipulations that would be attached to leases offered for certain areas (BLM 1990; pages 23-24 and Mineral Map 1). The BREO&GA categorizes all lands in Summit and Morgan counties that are available for leasing along with any applicable stipulations that would be attached to leases offered for certain areas (BLM 1994).

1.5 Relationship to Statutes, Regulations, or Other Plans

The proposed action is consistent with federal environmental laws and regulations, Executive Orders, and Department of Interior and the BLM policies and is in compliance, to the maximum extent possible, with state laws and local and county ordinances and plans to the maximum extent possible, including the following:

- Federal Land Policy and Management Act (1976) and associated regulations at 43 CFR, Part 2800
- National Historic Preservation Act (1966), as amended and associated regulations at 36 CFR Part 800
- Bald and Golden Eagle Protection Act (1962)
- Endangered Species Act (1973), as amended
- Migratory Bird Treaty Act (1918)
- BLM Manual 6840- Special Status Species Management
- UTSO IM2010-055 - Protection of Ground Water Associated with Oil and Gas Leasing, Exploration and Development
- MOU Among the USDA, USDI and EPA Regarding Air Quality Analysis and Mitigation for Federal Oil and Gas Decisions Through the NEPA Process (2011)
- Determining Conformity of Federal Actions to State or Federal Implementation Plans (40 CFR Part 93 Subpart E)
- State Protocol Agreement Between the Utah State Director of the Bureau of Land Management and the Utah State Historic Preservation Officer Regarding the Manner in which the Bureau of Land Management Will Meet its Responsibilities Under the National Historic Preservation Act and the National Programmatic Agreement Among the BLM, the Advisory Council on Historic Preservation and the National Conference of State Historic Preservation Officers (2001)
- County Master Plan, as revised (Tooele, Utah, Summit and Morgan)
- Oil and Gas Leasing Reform – Land Use Planning and Lease Parcel Reviews (BLM WO IM 2010-117)
- Salt Lake District Oil and Gas Leasing Environmental Analysis Record (EAR) (1975)
- The National Trails System, Memorandum of Understanding, 06-SU-11132424-196, Among The United States Department of the Interior, Bureau of Land Management, National Park Service, United States Fish and Wildlife Service; United States Department of Agriculture Forest Service; United States Department of the Army, Corps of Engineers; and The United States Department of Transportation Federal Highway Administration (2006)

- Comprehensive Management and Use Plan Final Environmental Impact Statement
California National Historic Trail and Pony Express National Historic Trail (1999)

These documents and their associated information or analysis are hereby incorporated by reference, based on their use and consideration by various authors of this document. The attached Interdisciplinary Team Checklist, Appendix C, was also developed after consideration of these documents and their contents. These resources are either analyzed later in this document or, if not impacted, are also listed in Appendix C.

1.6 Identification of Issues

The proposed action was reviewed by an interdisciplinary parcel review (IDPR) team composed of resource specialists from the SLFO. This team identified resources in the parcel areas which might be affected and considered potential impacts using current office records and geographic information system (GIS) data, and site visits. The UTSO specialists for air quality and solid minerals reviewed the proposal. The results of the IDPR team review are contained in the Interdisciplinary Team Checklist, Appendix C.

On November 4, 2011, the UTSO sent letters to the National Park Service (NPS), United States Fish and Wildlife Service (USFWS), United States Forest Service (USFS) and the State of Utah's Public Lands Policy Coordination Office (PLPCO), Utah Division of Wildlife Resources (UDWR) and the State Institutional Trust Lands Administration (SITLA) to notify them of the pending lease sale, solicit comments and concerns on the preliminary parcel list and invite them to participate in site visits. UTSO also provided GIS shapefiles to contact points within the NPS, USFWS and UDWR. Additional coordination occurred with the Hill Air Force Base. These agencies are partners in the leasing process.

Letters were sent to the private landowners of parcels UT0812-001 through UT0812-004 to solicit their comments and concerns about the pending lease sale.

Site visits and data searches were conducted by the BLM staff on the proposed action parcels to validate the existing data and gather new information in order to make informed leasing recommendations. None of the other agencies participated in the site visits with the SLFO IDPR team.

The deadline for the public to nominate areas or otherwise submit EOIs was October 3, 2011. As per WO IM 2010-117 (Leasing Reform), public notification was initiated by entering the project information on the ENBB on February 7, 2012.

1.7 Summary

This chapter has presented the purpose and need of the proposed project, as well as the relevant issues, i.e., those elements of the human environment that could be affected by the implementation of the proposed project. In order to meet the purpose and need of the proposed project in a way that resolves the issues, the BLM has considered and/or developed a range of action alternatives. These alternatives are presented in Chapter 2. The potential environmental impacts or consequences resulting from the implementation of each alternative considered in detail are analyzed in Chapter 4 for each of the identified issues.

2.0 DESCRIPTION OF ALTERNATIVES, INCLUDING THE PROPOSED ACTION

2.1 Introduction

This EA addresses three alternatives (Alternative A – Leasing Under the Existing Land Use Plans; Alternative B – Proposed Action, Leasing with Additional Protective Measures and Alternative C – No Action, No Leasing).

Other alternatives were not considered because the issues identified during scoping did not indicate a need for additional alternatives or protective measures beyond those contained in the proposed action. The No Action alternative is considered and analyzed to provide a baseline for comparison of the impacts of the Proposed Action.

Leasing is an administrative action that affects economic conditions but does not directly cause environmental consequences. However, leasing is considered to be an irretrievable commitment of resources because the BLM generally cannot deny all surface use of a lease unless the lease is issued with a NSO stipulation. Potential oil and gas exploration and production activities, committed to in a lease sale, could impact other resources and uses in the planning area. Direct, indirect, or cumulative effects to resources and uses could result from as yet undetermined and uncertain future levels of lease exploration or development.

Analysis Assumptions

2.1.1 Reasonably Foreseeable Development Scenario

Although at this time it is unknown when, where, or if future well sites or roads might be proposed on any leased parcel, should a lease be issued, site specific analysis of individual wells or roads would occur when a lease holder submits an APD. For the purposes of the analysis for each resource, the BLM assumed that one well pad with road and pipeline could be constructed on each lease subject to the terms, conditions, and stipulations of the lease. However, in general, activities are anticipated to take place as described in the following sections.

The reasonably foreseeable development scenario (RFD) for the BREO&GA includes the following:

- Seismic Activity
 - One seismic exploration would occur each year,
 - 23 miles of linear distance and 12 feet wide,
 - 33 .6 acres of land
- Drill pads (including roads)
 - one drill pad would be developed per year
 - 6.8 acres x 11 = 74.8 acres disturbed
 - total annual disturbance would be 40 .4 acres
 - one percent of disturbed acreage would not be reclaimed during the period of this analysis
- 1 production well would be developed in 20 years
 - Eastern Summit County is the most likely location for the production well
- 150 days average drilling time per well (including pad development)

This differs for the Pony Express RMP area. The PE O&G Supplemental EA has the following RFD:

- Seismic Activity
 - One Seismic line
 - 50 miles long and 12 feet wide
 - 1.46 acres disturbed per mile = 73 acres total
 - Four percent of disturbed acreage will not be reclaimable; therefore, 73 acres x .04 = 2.9 acres not reclaimed.
- Exploration drill pads (including roads):
 - Anticipate three pads in 11 years
 - 6.8 acres per pad x 3 = 20.4 acres disturbed
 - Four percent of disturbed acreage will not be reclaimable; Therefore, 20 acres x .04 = 0.8 acres not reclaimed. 92% of all disturbance would be reclaimed (90 acres).
- Producing wells
 - No producing wells anticipated

This would be reasonable because the actual disturbance has only been 11 Federal wells drilled in the SLFO over the last 24 years (State of Utah Well History Database, 2012).³ All of these wells have been plugged and abandoned.

Specifically, this database shows 6 wells have been drilled within the PE O&G Supplemental EA area [Tooele County (3 wells) and Utah County (3 wells)] equating to an approximate 41 acres of disturbance. This information breaks down to 3 wells (20.4 acres) per 11 years or 6 wells (41 acres) in 22 years. This shows that the number of wells and surface disturbance has occurred as anticipated in the Supplemental EA analysis prepared for the Pony Express RMP.

Data for the BREO&GA area show 5 Federal wells have been drilled [Summit County (5 wells) and Morgan County (0 wells)] affecting approximately 34 acres. Therefore, the RFD's are still appropriate since the actual disturbance/wells in each area has not been exceeded and is a much smaller number than what was anticipated in the BREO&GA and the PERMP and Supplement.

2.1.2 Well Pad and Road Construction

Equipment for well pad construction could consist of dozers, scrapers, excavators and graders. All well pads would be reclaimed. All available topsoil from each well pad would be stripped and stockpiled around the edge of the pad for future reclamation. When needed, topsoil would be spread over interim reclamation areas, seeded, left in place for the life of the well, and the remaining topsoil would be used during the final reclamation process. For this analysis, it was assumed that disturbance for well pads would be 6.8 acres per well to account for any infrastructure (e.g., pipelines) that would be required if the wells were to go into production (section 2.1.3). Disturbed land would be seeded with a mixture (certified weed free) and rate as recommended or required by the BLM.

³ State of Utah Well History Database data accessed online at:
http://oilgas.ogm.utah.gov/Data_Center/LiveData_Search/well_history_lookup.cfm

Depending on the locations of the proposed wells, it is anticipated that some new or upgraded access roads would be required to access well pads and maintain production facilities. Any new roads constructed for the purposes of oil and gas development would be utilized year-round for maintenance of the proposed wells and other facilities, and for the transportation of fluids and/or equipment, and would remain open to other land users. Construction of new roads or upgrades to existing roads would require a 30-foot construction width and would be constructed of native material. After completion of road construction activities, the 30-foot construction width would be reclaimed to an 18-foot wide crowned running surface as well as drainage ditches. It is not possible to determine the distance of road that would be required because the location of the wells would not be known until the APD stage. However, for purposes of analyses it is assumed that disturbance from access roads would be approximately 1.8 acres of disturbance for each well (0.5 mile of road/well).

2.1.3 Production Operations

If wells were to go into production, facilities would be located at the well pad and typically include a well head, a dehydrator/separator unit, and storage tanks for produced fluids. The production facility would typically consist of two storage tanks, a truck load-out, separator, and dehydrator facilities. Construction of the production facility would be located on the well pad and not result in any additional surface disturbance.

All permanent surface structures would be painted a flat, non-reflective color (e.g., juniper green) specified by the BLM in order to blend with the colors of the surrounding natural environment. Facilities that are required to comply with the Occupational Safety and Health Act (OSHA) would be excluded from painting color requirements. All surface facilities would be painted immediately after installation and under the direction and approval of the BLM.

If oil is produced, the oil would be stored on location in tanks and transported by truck to a refinery. The volume of tanker truck traffic for oil production would be dependent upon production of the wells.

If natural gas is produced (which is more likely to occur than the production of oil), construction of a gas sales pipeline would be necessary to transport the gas. An additional Sundry Notice, right of way (ROW) and NEPA analysis would be completed, as needed, for any pipelines and/or other production facilities proposed across public lands. BLM BMPs (Best Management Practices), such as burying the pipeline or installing the pipeline within the road, would be considered at the time of the proposal.

All operations would be conducted following the “Gold Book”, *Surface Operating Standards for Oil and Gas Exploration and Development*. The Gold Book was developed to assist operators by providing information on the requirements for conducting environmentally responsible oil and gas operations on federal lands. The Gold Book provides operators with a combination of guidance and standards for ensuring compliance with agency policies and operating requirements, such as those found at 43 CFR 3000 and 36 CFR 228 Subpart E; Onshore Oil and Gas Orders (Onshore Orders); and Notices to Lessees. Included in the Gold Book are environmental BMPs; these measures are designed to provide for safe and efficient operations while minimizing undesirable impacts to the environment.

Exploration and development on split-estate lands is also addressed in the Gold Book, along with IM 2003-131, Permitting Oil and Gas on Split-Estate Lands and Guidance for Onshore Oil and Gas Order No. 1, and IM 2007-165, Split-Estate Report to Congress – Implementation of Fluid Mineral Leasing and Land Use Planning Recommendations. Proper planning and consultation, along with the proactive incorporation of these BMPs into the APD Surface Use Plan of Operations by the operator, would typically result in a more efficient APD and environmental review process, increased operating efficiency, reduced long-term operating costs, reduced final reclamation needs, and less impact to the environment.

2.1.4 Produced Water Handling

Water is often associated with either produced oil or natural gas. Water is separated out of the production stream and can be temporarily stored in the reserve pit for 90 days. Permanent disposal options include discharge to evaporation pits or underground injection. Handling of produced water is addressed in Onshore Oil and Gas Order No. 7.

2.1.5 Maintenance Operations

Traffic volumes during production would be dependent upon whether the wells produced natural gas and/or oil, and for the latter, the volume of oil produced. Well maintenance operations may include periodic use of work-over rigs and heavy trucks for hauling equipment to the producing well, and would include inspections of the well by a pumper on a regular basis or by remote sensing. The road and the well pad would be maintained for reasonable access and working conditions. Portions of the well pad not needed for production of the proposed well, including the reserve pit, would be re-contoured and reclaimed, as an interim reclamation of the site.

2.1.6 Plugging and Abandonment

If the wells do not produce economic quantities of oil or gas, or when it is no longer commercially productive, the well would be plugged and abandoned. The wells would be plugged and abandoned following procedures approved by a BLM Petroleum Engineer, which would include requiring cement plugs at strategic positions in the well bore. All fluids in the reserve pit would be allowed to dry prior to reclamation work. After fluids have evaporated from the reserve pit, sub-soil would be backfilled and compacted within 90 days. If the fluids within the reserve pit have not evaporated within 90 days (weather permitting or within one evaporation cycle, i.e. one summer), the fluid would be pumped from the pit and disposed of in accordance with applicable regulations. The well pad would be re-contoured, and topsoil would be replaced, scarified, and seeded within 180 days of the plugging the well.

2.2 Alternative A – Leasing Under the Existing Land Use Plans

This alternative represents a continuation of the current management and thus serves as a baseline for leasing lands in the analysis area. Currently areas are offered for oil and gas leasing subject to measures necessary to mitigate adverse impacts, according to the categories, terms, conditions, and stipulations identified in the PE RMP, PE O&G Supplemental EA, and the BREO&GA. In addition to the RMP, the BREO&GA and PE O&G Supplemental EA outline specific stipulations for resources. These documents also defined the RFD for the specific planning areas. Measures identified in the all three of these documents are applied through a category system at the time of leasing and the on- the-ground implementation of those stipulations and categories is accomplished through the APD process. There are four fluid mineral leasing categories located within the analysis area Categories I through IV.

Category 1 lands (36,177 acres) within the SLFO would be available for leasing with standard lease terms (BLM Form 3100-11). In addition to protections provided for under standard terms of the lease, two mandatory stipulations are imposed by policy by the BLM on every lease issued: one refers to the statutory protection of cultural resources and one for the statutory protection of threatened or endangered species, as described below.

All leases issued subsequent to October 5, 2004, would include the lease stipulation for the protection of cultural resources (WO IM 2005-003, Cultural Resources and Tribal Consultation for Fluid Minerals Leasing), which states:

“This lease may be found to contain historic properties and/or resources protected under the National Historic Preservation Act, American Indian Religious Freedom Act, Native American Graves Protection and Repatriation Act, E.O. 13007, or other statutes and executive orders. The BLM will not approve any ground disturbing activities that may affect any such properties or resources until it completes its obligations under applicable requirements of the NHPA and other authorities. The BLM may require modification to exploration or development proposals to protect such properties, or disapprove any activity that is likely to result in adverse effects that cannot be successfully avoided, minimized or mitigated.”

All leases issued would include the lease stipulation for the protection of threatened or endangered species (WO IM 2002-174, Endangered Species Act Section 7 Consultation), which states:

“The lease area may now or hereafter contain plants, animals, or their habitats determined to be threatened, endangered, or other special status species. BLM may recommend modifications to exploration and development proposals to further its conservation and management objective to avoid BLM-approved activity that would contribute to a need to list such a species or their habitat. BLM may require modifications to or disapprove proposed activity that is likely to result in jeopardy to the continued existence of a proposed or listed threatened or endangered species or result in the destruction or adverse modification of a designated or proposed critical habitat. BLM will not approve any ground-disturbing activity until it completes its obligations under applicable requirements of the ESA as amended, 16 United States Code (USC) 1531 et seq. including completion of any required procedure for conference or consultation.”

In addition, BLM regulations at 43 CFR 3101.1-2 allow, at a minimum, for the relocation of proposed oil and gas leasing operations up to 200 meters and/or timing limitations up to 60 days to provide additional protection to ensure that proposed operations minimize adverse impacts to resources, uses, and users.

Category 2 lands comprise approximately 6,074.5 acres within the SLFO. Category 2 lands would be available for leasing with the standard lease terms the two mandatory lease stipulations described above, and the special stipulations identified in the PE RMP and the BREO&GA. These special stipulations include timing or Controlled Surface Use (CSU) stipulations for wildlife habitat, Riparian/Wetland Habitat and Municipal and Non-Municipal Watershed Areas, Visual Resource Management (VRM) Class II and III Areas and a stipulation for raptor nesting sites (Table 1).

Stipulations serve to modify the rights granted by the standard lease terms when the BLM determines that conflicts exist between the relative resource values, uses, and/or users and oil and gas operations that cannot be adequately managed under the standard lease terms or by relocating the proposed operations up to 200 meters or delaying operations by up to 60 days. In addition to stipulations, lease notices can be attached to a lease to inform the lease purchaser of other resource issues that may occur on the parcel.

There are no Category 3 lands within the SLFO parcels being offered in the August 2012 Lease Sale. Category 3 lands would be available for leasing only with the NSO stipulation identified in the BE and PE RMP or the amendment for those leases where adverse impacts would occur through surface use of the land by oil and gas exploration and development.

Likewise, there are not any category 4 lands within the parcels being analyzed within this document. These areas are portions of the SLFO that have been identified in any RMP, amendment, wilderness designation or interim policy such as the Interim Management Policy for Lands Under Wilderness Review (H-8550-1) that designated the land as closed to leasing.

Table 1: Land Use Plan Stipulations, Exceptions, Modifications, Habitat/Area and Acreages.

Habitat/Area (Acreage)	Stipulation	Exception or Modification
BEAR RIVER EAST PLAN AMENDMENT		
Seasonal Wildlife Habitat (2435.73)	In order to protect seasonal wildlife habitat, exploration, drilling, and other development activity will be allowed only during the period from April 16 to November 30. This limitation does not apply to maintenance and operation of producing wells.	Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the BLM.
PONY EXPRESS RMP		
Crucial Raptor Nesting Sites (3759.78)	In order to protect crucial raptor nesting sites, exploration, and drilling and other development activity within 0.5 mile radius of the sites will be allowed from July 16 to February 28, and not allowed from March 1 through July 15. This limitation does not apply to maintenance and operation of producing wells.	Specific exceptions may be granted by the BLM if the proposed activity will not seriously disturb wildlife habitat values being protected. This determination will be made by a BLM wildlife habitat biologist in coordination with the Utah Division of Wildlife Resources and, if appropriate, the USF&WS. Such a determination may be made if the raptor nest in question is not active at the time of proposed activity. Quite often raptors will have alternate nesting sites available. If a raptor pair is using such an alternative site, it would be necessary to protect the inactive nest from disturbing activities for fluid mineral leasing and exploration. However, it should be noted that all eagle nests, active or inactive, are protected by the Eagle Act and must be left intact and cannot be removed from their original location.
Riparian & Wetland Habitat and Municipal and Non-Municipal Watershed Areas (2474.86)	In order to protect riparian/wetland habitat and municipal and non-municipal watershed areas, no occupancy or other surface disturbance will be allowed within 1,200 feet of live water or within 1,200 feet of wetlands as defined by the USF&WS in "Classification of Wetlands and Deep Water Habitats of the United States," 1979, page 3. This limitation does not apply to maintenance and operation of producing wells.	If the lessee can demonstrate that operations can take place without impact to the resource being protected, an exemption to this stipulation may be granted if approved in writing by the authorized officer in consultation with the District's watershed specialist. For example, exemptions may be allowed where the riparian zone or the hydrologic influence area of phreatophytes exists less than 1,200 feet from live water.
Visual Resource Management (VRM) Class II and III Areas (2474.86)	In order to protect visual resources in Visual Resource Management (VRM) Class II and III areas, activities in these areas will be located and designed in a way to meet Class II and III management criteria. This limitation does not apply to maintenance and operation of producing wells.	If the lessee can demonstrate that operations can take place without impact to the resource being protected, an exception to this stipulation may be granted if approved in writing by the authorized officer in consultation with the District's VRM specialist. For Class II areas, exemptions may be granted whereby changes due to the proposed action repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape. For Class III areas, exemptions may be granted whereby changes due to the proposed action repeat the basic elements found in the predominant natural features of the characteristic landscape. This may be achieved through reclamation, topographic or vegetative screening, construction practices and use of non-reflective paints which blend into the viewscape for buildings, tanks, and pipelines.

2.3 Alternative B – Proposed Action, Leasing with Additional Protective Measures

The Proposed Action alternative would offer for lease twenty-three (23) nominated parcels within the administration of the SLFO which have been proposed for sale in the August 2012 oil and gas lease sale within the analysis area. This alternative would lease these parcels subject to additional resource protective measures beyond the terms and stipulations described for the Alternative A (Table 1) and beyond that which could be achieved through relocation of the proposed activity up to 200 meters and/or timing restrictions of 60 days or other existing administrative actions. The effects of implementing the Proposed Action alternative would be similar to the Alternative A with the caveat that, under this alternative, more stringent measures would be applied to some leases to further protect specific resources (Table 2). Lease Notices have been developed for conservation measures and would be applied on specific lease parcels as warranted by subsequent ID Team review. The addition of prescribed lease notices could be applied to all leasing categories.

Table 2: Additional Conservation Measures Included in the Proposed Action Alternative

Protection provided to the area has been identified by the UDWR as containing crucial mule deer, elk and moose winter habitat since the PE RMP and the amendment have been completed. Exploration, drilling and other development activities may be restricted from December 1 through April 15 within this area to protect this habitat and the animals during this time.
Protection provided to the area has been identified by the UDWR as containing crucial mule deer fawning and elk calving habitat since the PE RMP and the amendment have been completed. Exploration, drilling and other development activities may be restricted from May 1 through June 30 within this area to protect this habitat and the animals during this time.
Protection provided to the area has been identified by the UDWR as containing crucial pronghorn habitat since the PE RMP and the amendment have been completed. Exploration, drilling and other development activities may be restricted to protect this habitat.
Protection provided to the area has been identified by the UDWR as containing crucial moose habitat since the PE RMP and the amendment have been completed. Exploration, drilling and other development activities may be restricted from December 1 through April 15 within this area to protect this habitat and the animals during this time.
Additional protection of migratory birds wherein surveys would be required whenever disturbances and/or occupancy are proposed in association with oil and gas exploration and development within priority habitats. Based on the results of the field survey, the authorized officer will determine the appropriate buffers and timing limitations.
Additional protection of raptors wherein surveys would be required whenever disturbances and/or occupancy are proposed in association with oil and gas exploration and development within potential raptor protection buffer areas. Based on the results of the field survey, Appropriate seasonal and spatial buffers shall be placed on all known raptor nests in accordance with Utah Field Office Guidelines for Raptor Protection from Human and Land use Disturbances (USFWS 2002) and Best Management Practices for Raptors and their Associated Habitats in Utah (BLM 2006). All construction related activities will not occur within these buffers if pre-construction monitoring indicates the nests are active, unless a site specific evaluation for active nests is completed prior to construction and if a BLM wildlife biologist, in consultation with USFWS and UDWR, recommends that activities may be permitted within the buffer. The BLM will coordinate with the USFWS and UDWR and have a recommendation within 3-5 days of notification. Any construction activities authorized within a protective (spatial and seasonal) buffer for raptors will require an on-site monitor.
Protection provided to the area has been identified by the UDWR as containing golden eagle habitat since the PE RMP and the amendment have been completed. Exploration, drilling and other development activities may be restricted to protect this habitat.
No surface use or otherwise disruptive activity would be allowed that would result in direct disturbance to populations or individual special status plant and animal species, including those listed on the BLM sensitive species list and the Utah sensitive species list. The lessee/operator is given notice that lands in this parcel have been identified as containing potential habitat for species on the Utah Sensitive Species List. Modifications to the Surface

Table 2: Additional Conservation Measures Included in the Proposed Action Alternative

Use Plan of Operations may be required in order to protect these resources from surface disturbing activities in accordance with Section 6 of the lease terms, Endangered Species Act, Migratory Bird Treaty Act and 43 CFR 3101.1
Development within this parcel could potentially impact an aquatic Conservation Agreement Species and its native habitats. To comply with the intent of the Conservation Agreement, the lessee is hereby on notice that they will need to coordinate with BLM, UDWR, and USFWS to meet special requirements needed specific to the agreement. For aquatic species: appropriate measures to minimize the risk of spreading aquatic exotic species (mussels, purple loosestrife, mosquito fish, and melanoides snail) should be developed in coordination with UDWR. Surface pumping for water may not be allowed depending on the sources proximity to sensitive habitat, no surface disturbance within the 100-year floodplain, and project activities should avoid changing ground and surface hydrology.
To mitigate any potential impact oil and gas development emissions may have on regional ozone formation, the following Best Management Practices (BMPs) would be required for any development projects: Tier II or better drilling rig engines, Stationary internal combustion engine standard of 2g NOx/bhp-hr for engines <300HP and 1g NOx/bhp-hr for engines >300HP, Low bleed or no bleed pneumatic pump valves, Dehydrator VOC emission controls to +95% efficiency and Tank VOC emission controls to +95% efficiency.
All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2 grams of NOx per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower. All new and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 grams of NOx per horsepower-hour.
Prior to project-specific approval, additional air quality analyses may be required to comply with the National Environmental Policy Act, Federal Land Policy Management Act, and/or other applicable laws and regulations. Analyses may include dispersion modeling for deposition and visibility impacts analysis, control equipment determinations, and/or emission inventory development. These analyses may result in the imposition of additional project-specific air quality control measures.
Development within this parcel could impact all known and yet to be verified routes and cutoffs related to elements of the California National Historic Trail or the Pony Express National Historic Trail. Modification of Surface Use Plan of Operations may be required as needed to protect and preserve the historic integrity of the identified trail segment. Coordination with the National Park Service may be necessary.
In order to manage public water systems drinking water source protection zones will be recognized and the BLM working in coordination with the State of Utah's Division of Drinking Water would implement appropriate action.
Application of appropriate measures will depend on the nature of the proposed development, as well as proposed timing and location. The following avoidance and minimization measures have been designed to ensure activities carried out on the lease are in compliance with the Endangered Species Act. Integration of, and adherence to these measures will facilitate review and analysis of any submitted permits under the authority of this lease. Following these measures could reduce the scope of Endangered Species Act, Section 7 consultation at the permit stage. Current avoidance and minimization measures are generally adapted from the standards and guidelines listed in Chapter 7 (Conservation Measures) of the LCAS (Ruediger 2000) and include the following: <ol style="list-style-type: none"> 1. Surveys will be required prior to operations unless species occupancy and distribution information is complete and available. All Surveys must be conducted by qualified individual(s), and be conducted according to protocol. 2. Based on data and information gathered in item 1, lease activities within, or in proximity to, occupied lynx habitats will require monitoring throughout the duration of the project. To ensure desired results are being achieved, minimization measures will be evaluated and, if necessary, Section 7 consultation reinitiated. 3. Avoid all surface disturbing actions within occupied denning habitat. 4. Avoid construction and surface disturbing actions in proximity to potential denning habitat during the breeding season (mid-April to July). 5. Activities involved with routine maintenance and operation will only occur during daytime hours, when lynx are least active. 6. Where technically and economically feasible, wells will be remotely monitored within lynx habitat. 7. Limit disturbance to and within suitable habitat by staying on approved access routes.

Table 2: Additional Conservation Measures Included in the Proposed Action Alternative

8. Limit new access routes created by the project.
9. Dirt and gravel roads traversing lynx habitat (particularly those that could become highways) should not be paved or otherwise upgraded (e.g., straightening of curves, widening of roadway etc.) in a manner that is likely to lead to significant increases in traffic volume, traffic speed, increased width of the cleared ROW, or would foreseeably contribute to development or increases in human activity in lynx habitat. When these types of upgrades are proposed, a thorough analysis of potential direct and indirect impacts to lynx and lynx habitat should be conducted.
10. Minimize impacts to habitats that support lynx prey.
11. Where technically and economically feasible, use directional drilling or multiple wells from the same pad to reduce surface disturbance and to minimize or eliminate drilling in suitable lynx habitat.

Additional measures may also be employed to avoid or minimize effects to the species at the development stage and will be developed and implemented in consultation with the U.S. Fish and Wildlife Service to ensure continued compliance with the Endangered Species Act.

Legal description of each nominated parcel along with the stipulations and the lease notices that would be attached to the parcels under this alternative can be found in Appendix A.

2.4 Alternative C – No Action

The No Action Alternative would not offer any of the nominated parcels for sale.

2.5 Alternatives Considered but Not Carried Forward

Leasing All 92 Parcels

A total of 92 parcels were nominated and forwarded to the SLFO IDPR for review. An alternative was considered that included leasing of all these parcels.

Parcel UT0812-129 was reviewed and found to occur within an area that possesses significant cave resources covered under the Federal Cave Resources Protection Act. Currently the PE RMP does not address this resource; therefore this parcel was deferred.

In accordance with FLPMA sec 201 and WO IM 2011-154 *Requirement to Conduct and Maintain Inventory Information for Wilderness Characteristics and to Consider Lands with Wilderness Characteristics in Land Use Plans*. BLM undertakes the process of updating wilderness character inventories of public lands as necessary when activities or projects are proposed that result in a potential wilderness issue. Sixty-eight parcels including parcels UT0812-75 through UT0812-128, UT0812-130, UT0812-131 and UT0812-134 through UT0812-144 are located on lands that have been reviewed for wilderness characteristics. Currently BLM has determined that these lands may possess wilderness characteristics of size, naturalness, and outstanding opportunities for solitude or primitive recreation. This determination will require BLM to address the possibility of management of those characteristics during the land use planning process or develop a land use plan amendment to the existing land use plan. Since the SLFO is not currently involved in a land use plan revision or plan amendment, lands with wilderness characteristics are being exempted from leasing until one of these procedures are initiated and completed. As a result of this policy, these parcels have been deferred from the August 2012 lease sale.

3.0 AFFECTED ENVIRONMENT

3.1 Introduction

This chapter presents the potentially affected existing environment (i.e., the physical, biological, social, and economic values and resources) of the impact area as identified in the Interdisciplinary Team Checklist found in Appendix C and presented in Chapter 1 of this assessment. This chapter provides the baseline for comparison of impacts/consequences described in Chapter 4. Only those aspects of the affected environment that are potentially impacted are described in detail (Appendix C).

3.2 General Setting

The proposed action would result in the leasing for oil and gas development of 23 parcels within the SLFO. Parcels UT0812-001 through UT0812-004 are split estate where the surface estate is private and the subsurface estate is federal and managed by the SLFO BLM (Appendix B).

Parcels UT0812-001 through UT0812-003

Parcels UT0812-001 through UT0812-003 (group 2) are located in Morgan and Summit Counties on private surface approximately 3 to 5 miles outside the town of Coalville located along Interstate 80. The parcels are in relatively mountainous terrain in the Wasatch Mountains. Access to some the parcels is possible across existing spur routes from secondary roads. Additional routes would need to be constructed to planned drill pad sites within the parcels themselves. The soils are loamy to moderately loamy. The vegetation class is sub alpine sagebrush shrub.

Parcel UT0812-004

Parcel UT0812-004 (group 1) is located about six miles east of Highway 150, along the north flank of the Uinta Mountains, against the Utah/Wyoming boarder in Summit County, Utah. Jeep trails cross the northern portions of the parcel. Spurs would need to be constructed to access areas within the parcel. The parcel is on gently sloping to moderately sloping terrain. The soils are moderately loamy. The vegetation class is sub alpine sagebrush shrub.

Parcels UT0812-222 through UT0812-224

Parcels UT0812-222 through UT0812-224 (group 3) are located about two miles north of Highway 6, and 12 miles northwest of the town of Helper in Utah County, Utah. Access to the group would be an existing dirt road that boards BLM and USFS. Access within the group would need to be constructed. The terrain in this group is moderately steep slopes and just outside the Ashley National Forest. The soils in this group are moderately loamy and the vegetation is high altitude desert shrub.

Parcels UT0812-132 and UT0812-133

Parcels UT0812-132 and UT0812-133 (group 4) are located approximately 15 miles north of the town of Eureka and State Road 36 in Tooele County, Utah. A number of roads, some maintained and others not, pass through the group in many areas, but some new spur roads may need to be constructed depending on any future drilling. The group has juniper and salt desert shrub plant community and the terrain goes from relatively level to steep slopes. The soils in this group are made up of Lake Bonneville deposits which are high in sand gravel and clays.

Parcels UT0812-023 through UT0812-028, UT0812-147, UT0812-152 and UT0812-159 through UT0812-164

Parcels UT0812-023 through UT0812-028, UT0812-147, UT0812-152 and UT0812-159 through UT0812-164 (group 5) are located on the north and south sides of Interstate 80 about 7 miles west of Delle in Tooele County, Utah. A number of roads cross through the group, but spur roads may need to be constructed depending on pad locations. The terrain in the west of the group is relatively flat and gradually gets steeper the more east you proceed. The soils, made up of Lake Bonneville deposits, range from muds, silts and clays from the west and get more gravelly the further east you proceed. The vegetation is desert shrub.

3.3 Resources/Issues Brought Forward for Analysis

The affected environment of the proposed action and no action alternatives were considered and analyzed by an interdisciplinary team as documented in the Interdisciplinary Team Checklist, Appendix C. The checklist indicates which resources of concern are either not present in the project area or would not be impacted to a degree that requires detailed analysis. Resources which could be impacted to a level requiring further analysis are described in this Chapter and impacts to these resources are analyzed in Chapter 4.

3.3.1 Air Quality

Air quality is affected by various natural and anthropogenic factors. Industrial sources such as power plants, mines, and oil and gas extraction activities within Northern Utah contribute to local and regional air pollution. Urbanization and tourism create emissions that affect air quality over a wide area. Air pollutants generated by motor vehicles include tailpipe emissions and dust from travel over dry, unpaved road surfaces. Strong winds can generate substantial amounts of windblown dust.

Air pollution emissions are characterized as point, area, or mobile. Point sources are large, stationary facilities such as power plants and manufacturing facilities and are accounted for on a facility by facility basis. Area sources are smaller stationary sources and, due to their greater number, are accounted for by classes. Production emissions from an oil and gas well and dust from construction of a well pad would be considered area source emissions. Mobile sources consist of non-stationary sources such as cars and trucks. Mobile emissions are further divided into on-road and off-road sources. Engine exhaust from truck traffic to and from oil and gas locations would be considered on-road mobile emissions. Engine exhaust from drilling operations would be considered off road mobile emissions.

The Clean Air Act required the Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. The Utah Division of Air Quality (UDAQ) is responsible to ensure compliance with the NAAQS within the state of Utah. Table 3 shows NAAQS for the EPA designated criteria pollutants (EPA 2008).

Table 3: National Ambient Air Quality Standards

Pollutant	Primary Standards		Secondary Standards	
	Level	Averaging Time	Level	Averaging Time
Carbon Monoxide (CO)	9 ppm (10 mg/m ³)	8-hour (1)	None	
	35 ppm (40 mg/m ³)	1-hour (1)		
Lead (Pb)	0.15 µg/m ³ (2)	Rolling 3-Month Average	Same as Primary	
	1.5 µg/m ³	Quarterly Average	Same as Primary	
Nitrogen Dioxide (NOx)	0.053 ppm (100 µg/m ³)	Annual (Arithmetic Mean)	Same as Primary	
	100 ppb	1-hour	Same as Primary	
Particulate Matter (PM ₁₀)	150 µg/m ³	24-hour (3)	Same as Primary	
Particulate Matter (PM _{2.5})	15.0 µg/m ³	Annual (4) (Arithmetic Mean)	Same as Primary	
	35 µg/m ³	24-hour (5)	Same as Primary	
Ozone (O ₃)	0.075 ppm (2008 std)	8-hour (6)	Same as Primary	
Sulfur Dioxide (SO ₂)	0.03 ppm	Annual (Arithmetic Mean)	0.5 ppm (1300 µg/m ³)	3-hour (1)
	0.14 ppm	24-hour (1)		
	75 ppb	1-hour (1)	None	

(1) Not to be exceeded more than once per year.

(2) Final rule signed October 15, 2008.

(3) Not to be exceeded more than once per year on average over 3 years.

(4) To attain this standard, the 3-year average of the weighted annual mean PM2.5 concentrations from single or multiple community-oriented monitors must not exceed 15.0 µg/m3.

(5) To attain this standard, the 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor within an area must not exceed 35 µg/m3 (effective December 17, 2006).

(6) To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.075 ppm. (effective May 27, 2008).

Utah County is not in attainment of the NAAQS for coarse (PM₁₀) and fine (PM_{2.5}) particulate matter in the area of the Group 4 parcels. Prior to authorizing any specific projects in the nonattainment portions of Utah County, a conformity determination as required by 40 CFR 93 Part B must be conducted to determine the project's compliance with any applicable State Implementation Plans.

Air quality in the area of the remaining parcels meets the NAAQS (State Department of Environmental Quality and the Division of Air Quality Standards (Utah Division of Air Quality 2011 Annual Report)).⁴

An “unclassified” designation indicates that sufficient air monitoring is not available to make a determination as to attainment status. For regulatory purposes an unclassified county is considered the same as attainment. The UDAQ 2011 annual report includes a 2008 emissions inventory (EI) by county (Table 4).

Table 4: Emissions Inventory (2008) (Measured in Tons per Year (TPY)).

Pollutant	Morgan	Tooele	Utah	Summit
PM ₁₀	735.48	5502.20	10184.34	2911.70
PM _{2.5}	142.55	1245.71	2093.70	546.33
SO _x	277.97	280.38	405.98	239.02
NO _x	2138.79	6970.88	11644.94	5380.07
VOC	10293.47	43060.70	33132.05	20893.70
CO	6914.68	32487.53	80904.42	19645.90

Although not listed as a NAAQS criteria pollutant, volatile organic compounds (VOC) are also considered in this EA as they, along with NO_x, are precursors to the formation of ozone and are listed by UDAQ as a pollutant that, if the threshold is exceeded, would require an approval order.

This EA addresses mobile off road engine exhaust emissions from drilling activities, venting and flaring emissions from completion and testing activities, emissions from ongoing production activities, and fugitive dust emissions, specifically emissions of total particulate matter of less than 10 micrometers (PM₁₀), from heavy construction operations. PM₁₀ emissions are converted from total suspended particulates by applying a conversion factor of 25%. PM_{2.5} is not specifically addressed as it is included as a component of PM₁₀. PM_{2.5} is converted from PM₁₀ by applying a conversion factor of 15%. This EA does not consider mobile on road emissions as they are dispersed, sporadic, temporary, and not likely to cause or contribute to an exceedance of the NAAQS.

3.3.2 Migratory Birds

A variety of migratory song bird species use habitats within the parcels for breeding, nesting, foraging, and migratory habitats. Migratory birds are protected under the Migratory Bird Treaty Act of 1918 (MBTA). The MBTA makes it unlawful to pursue, hunt, kill, capture, possess, buy, sell, purchase, or barter any migratory bird, including the feathers or other parts, nests, eggs, or migratory bird products unless it is a permitted action. The Executive Order 13186 sets forth the responsibilities of Federal agencies to further implement provisions of the MBTA by integrating bird conservation principles and practices into agency activities and by ensuring that Federal actions evaluate the effects of proposed actions and agency plans on migratory birds. BLM’s role under the Migratory Bird Treaty Act (MBTA) is to adequately manage migratory birds and their habitats, and to reduce the likelihood of a sensitive bird species from being listed under the Endangered Species Act.

⁴ Accessed on 2/17/2012 from <http://www.airquality.utah.gov/Public-Interest/annual-report/.pdf/2011%20Annual%20Report.pdf>

In addition, a Memorandum of Understanding (MOU) between the BLM and United States Fish and Wildlife Service (USFWS) (BLM MOU WO-230-2010-04) provides BLM further direction for project-level NEPA guidance for meeting MBTA conservation and compliance. The emphasis is on the identifying sensitive bird species and habitats through the United States Fish and Wildlife Service (USFWS) 2008 Birds of Conservation Concern (BCC) Species List, the Utah Partners in Flight (UPIF) Species List (IM 2008-050), and BLM Sensitive Species List. The MOU direction includes evaluating the effects of BLM's actions on these species during the NEPA process; including effects on bird population and habitat. The BLM is to implement approaches to lessen the likelihood of impacts by having project alternatives that avoid, minimize and mitigate adverse impacts for migratory birds the habitats they depend upon that are most likely to be present in the project area.

The physiographic regions within the SLFO are the Great Basin and the Wyoming Basin. The UPIF Priority Species List, the BCC lists for Region 9 (Great Basin) and Region 10 (Northern Rockies), the Raptor Inventory Nest Surveys database and the Utah Natural Heritage Database (Utah Division of Wildlife Resources 2011) were used to identify potential habitat for priority species that could utilize habitats within the SLFO and within the parcels. Table 5 lists the UPIF Priority Species list and the FWS BCC species that inhabit the Salt Lake Field Office and also may occur in the parcels.

Table 5: Priority Migratory Birds that may inhabit the leasing parcels depending upon the Season⁵

Priority Species	1st Breeding Habitat	2nd Breeding Habitat	Wintering Habitat
Lewis's Woodpecker	Ponderosa Pine	Lowland Riparian	Oak
Abert's Towhee	Lowland Riparian	Lowland Riparian	Lowland Riparian
American Avocet	Wetland	Playa	Migrant
Lucy's Warbler	Lowland Riparian	Low Desert Shrub	Migrant
American White Pelican	Water	Wetland	Migrant
Bobolink	Wet Meadow	Agriculture	Migrant
Virginia's Warbler	Oak	Pinyon-Juniper	Migrant
Gray Vireo	Pinyon-Juniper	Oak	Migrant
Bell's Vireo	Lowland Riparian	Lowland Riparian	Migrant
Long-billed Curlew	Grassland	Agriculture	Migrant
Sharp-tailed Grouse	Shrubsteppe	Grassland	Shrubsteppe
Brewer's Sparrow	Shrubsteppe	High Desert Scrub	Migrant
Black-necked Stilt	Wetland	Playa	Migrant
Broad-tailed Hummingbird	Lowland Riparian	Mountain Riparian	Migrant
Ferruginous Hawk	Pinyon-Juniper	Shrubsteppe	Grassland
Red-tailed Hawk	Evergreen/Deciduous trees	Cliff	
Black-tailed Gnatcatcher	Low Desert Shrub	Lowland Riparian	Low Desert Shrub
Black-throated Gray Warbler	Pinyon-Juniper	Mountain Shrub	Migrant
Grasshopper Sparrow	Grassland	Grassland	Migrant
Three-toed Woodpecker	Sub-Alpine Conifer	Lodgepole Pine	Sub-Alpine Conifer

⁵ As per the Utah Partners in Flight Avian Conservation Strategy Version 2.0 (Parrish et al., 2002).

Priority Species	1st Breeding Habitat	2 nd Breeding Habitat	Wintering Habitat
Sage Sparrow	Shrubsteppe	High Desert Shrub	Low Desert Shrub
Gambel's Quail	Low Desert Shrub	Lowland Riparian	Low Desert Shrub
Cordilleran Flycatcher	Sub-Alpine Conifer	Mountain Riparian	Migrant
Gray Flycatcher	Pinyon-Juniper	High Desert Shrub	Migrant
Golden Eagle	Cliff	High Desert Shrub	High Desert Shrub
Peregrine Falcon	Cliff	Lowland Riparian	Wetlands
Calliope Hummingbird	Mountain shrub	Mountain shrub	Low Desert Shrub
Pinyon Jay	Pinyon-juniper	Ponderosa Pine	Pinyon-Juniper
Sage Thrasher	Shrubsteppe	High Desert Shrub	Low Desert Shrub
Loggerhead Shrike	Grasslands	Shrublands	Grasslands
Juniper Titmouse	Pinyon-juniper	Pinyon-juniper	Pinyon-juniper
Three-toed Woodpecker	Sub-Alpine Conifer	Lodge-pole Pine	Sub-Alpine Fir
Swainson's Hawk	Open grass/shrublands	Open grass/shrublands	Migrant
Snowy Plover	Playa	Playa	Playa
Golden Eagle	Cliff	High desert shrub	High Desert Shrub/Migrant
Prairie Falcon	Cliff	High Desert Shrub	Agriculture
Great Horned Owl	Mountain Riparian	Lowland Riparian	Agriculture
Burrowing Owl	High Desert Shrub	Grassland	Migrant

3.3.3 Threatened, Endangered, Candidate or Special Status Animal Species

Canada lynx is listed as a threatened species under the ESA and inhabit boreal and montane habitats dominated by coniferous or mixed forest with thick undergrowth. They require forested landscapes with abundant prey, preferably snowshoe hare (*Lepus americanus*), or when hares are absent, red squirrel (*Tamiasciurus hudsonicus*) (USFS 2003). Den sites are typically in hollow trees, under stumps or logs, or in thick brush within mature or old growth stands with high log densities (Koehler and Brittell 1990). In the western United States, lynx are primarily associated with lodgepole pine, Engelmann spruce, and subalpine fir (Ruediger et al. 2000).

In 1998, the CDOW hoped to return this species to Colorado and initiated a lynx reintroduction project. Since then, more than 150 cats have been transplanted from Canada to the high country of Colorado. All of the lynx that are released are equipped with radio transmitters that allow biologists to track their movements via satellite. Some of the kittens born in the wild in Colorado now roam without radio collars, however.

A few of the radio-collared lynx have wandered far and wide, and Utah has been visited by at least three lynx in 2004 alone. One of these lynx remains in Utah in a secluded, snowy alpine area. An additional three have made short forays into Utah in previous years. Utah's mountains have been known to support lynx historically, so other lynx may inhabit the state.

On July 3, 2003 the U.S. Fish and Wildlife Service published a Notice of Remanded Determination of Status for the Contiguous United States Distinct Population Segment of the Canada Lynx; Clarification of Findings; Final Rule (USDI 2003).

As for the status of lynx in Utah, the Rule reads:

“Utah – There are only 10 verified records of lynx in Utah since 1916 (McKay 1991; McKelvey et al. 2000b). Nearly all of the reliable lynx reports are from the Uinta Mountain Range along the Wyoming border (McKay 1991). Four of the records correlate to the cyclic highs of the 1960s and 1970s. Recent DNA results documented the presence of a lynx in Utah (McKelvey in lit. 2003). There is no evidence of lynx reproduction in Utah. We conclude that lynx that occur in Utah are dispersers rather than residents, because most of the few existing records correspond to cyclic population highs, there is no evidence of reproduction, and boreal forest habitat in Utah is remote and far from source lynx populations.”

Parcel UT0812-004 is located within lynx habitat according to the mapped habitat provided by the US Forest Service in 2000. It is also shown as high value habitat by the UDWR. However, most likely there are no resident Canada lynx within the immediate area. A few may transition through the area on a rare occasion. The area borders Wyoming and the Wasatch National Forest and is mostly forested where there have been some sighting in the past ten years.

The Columbia Spotted Frog (*Rana luteiventris*) is a BLM Sensitive Species. A Conservation Agreement and Strategy (agreement) for Columbia Spotted Frog in the state of Utah is in place to expedite implementation of conservation measures for this species as a collaborative and cooperative effort among resource agencies. BLM is a signatory to the 1998 and 2006 amended agreements. The species seems to prefer isolated springs and seeps that have a permanent water source, although individuals are known to move overland in spring and summer after breeding. During cold winter months, spotted frogs burrow in the mud and become inactive. According to DWR Northern Region Aquatic Biologists, The drainages on the east side of Weber River (Parcels UT0812-003), Cottonwood Canyon and Springs Canyon and Cedar Springs may support amphibians, including the special status species, the Columbia Spotted frog. Recent surveys have not been conducted for this species.

3.3.4 Wildlife Excluding Special Status Species

Habitats for big game are delineated by the UDWR. The UDWR defines crucial value as “habitat on which the local population of a wildlife species depends for survival because there are no alternative ranges or habitats available” and “...essential to the life history requirements of a wildlife species.”

Parcels UT0812-001, UT0812-003, UT0812-004, UT0812-222, and UT0812-224 are located within mapped UDWR crucial winter range for mule deer and elk. UT0812-001, UT0812-003, UT0812-004, UT0812-222, and UT0812-224 are also within mule deer fawning while parcels UT0812-003 and UT0812-004 are within elk calving habitat. UDWR has mapped crucial moose winter range on parcels UT0812-003 and UT0812-004. Most parcels included on the August 2012 least list are within what UDWR considers crucial value year-long pronghorn habitat with the exception of parcels UT0812-001 through UT0812-004, UT0812-222, UT0812-223, and UT0812-224.

3.3.5 Recreation

Approximately 11.5 miles of the Hastings Cutoff segment of the California National Historic Trail extends from the mouth of Hastings Pass in the Cedar Mountains Wilderness and passes through portions of parcels UT0812-152 as well as UT0812-159 through UT0812-161. Parcels UT0812-23 through UT0812-28, UT0812-147 and UT0812-162 through UT0812-164 lie within the viewshed of this segment of the California Trail. Trail trace remnants or ruts are still visible in the soil a few locations along the trail within these parcels. Modern facilities located in this area have erased some of the evidence of historical passage elsewhere along the trail. Trail markers placed by the Oregon/California Trail Association (OCTA) guide visitors along this segment which has gained historical notoriety as the route of the ill-fated Donner Party who passed through this area in 1846. Other recreational use in the area is primarily by OHV users who transit across portions of the parcels north of Interstate 80 enroute to the Grassy Mountains.

The north half of Lease Parcel UT0812-132 is within the southernmost boundary of the Fivemile Pass Recreation Area along Tenmile Pass and encompasses Topliff Hill just north of the East Tintic Mountains. Recreation use in this area is low to moderate and primarily dispersed. There are no developed recreation sites within the area. Activities primarily consist of four-wheel driving, dirt bike riding, hunting and camping. Other recreational activities that may occur in the area include mountain biking, hiking, horseback riding, sightseeing, outdoor photography, nature study, rock hounding, wildlife viewing and bird watching. The OHV designation for the portion of the Fivemile Pass Recreation Area within Parcel UT0812-132 is “Limited” to existing roads and trails year-round (to promote resource values of soils, vegetation, wildlife, habitat, cultural, watershed, riparian, wetlands, and visual resource), under the PE RMP (1990).

3.3.6 Drinking Water Source Protection Zones

According to the State of Utah’s Division of Drinking Water, drinking water source protection zones occur on parcels UT0812-001, UT0812-003, & UT0812-152. The State of Utah’s ground water protected information cannot not be presented here in detail for security purposes.

4.0 ENVIRONMENTAL IMPACTS

4.1 Introduction

This chapter discusses the environmental consequences of implementing the alternatives described in Chapter 2. Under NEPA, actions with the potential to affect the quality of the human environment must be disclosed and analyzed in terms of direct and indirect effects (whether beneficial or adverse and short or long term) as well as cumulative effects. Direct effects are caused by an action and occur at the same time and place as the action. Indirect effects are caused by an action and occur later or farther away from the resource but are still reasonably foreseeable. Beneficial effects are those that involve a positive change in the condition or appearance of a resource or a change that moves the resource toward a desired condition. Adverse effects involve a change that moves the resource away from a desired condition or detracts from its appearance or condition. Cumulative effects are the effects on the environment that result from the incremental effect of the action when added to other past, present, and reasonably foreseeable future actions.

The No Action alternative (offer none of the nominated parcels for sale), serves as a baseline against which to evaluate the environmental consequences of the Proposed Action alternative (offer 23 nominated parcels for lease sale with additional resource protective measures). For each alternative, the environmental effects are analyzed for the resource topics that were carried forward for analysis in Chapter 3.

4.2 Direct and Indirect Impacts

4.2.1 Alternative A – Leasing Under the Existing Land Use Plans

4.2.1.1 Air Quality

Neither the PE RMP nor the BREO&GA have specific restrictions addressing air quality. The PE RMP Record of Decision (SWA Decision 1) states that all actions that involve air resources would be evaluated on a case-by-case basis and would comply with applicable Federal and State air implementation plans. It also states that air quality standards will be maintained or improved in accordance with State and Federal standards, which would include consultation with State agencies on proposed projects that may significantly affect air quality. In the same decision it also states that “management actions on public land will be designed to protect against significant air quality deterioration” (SWA Decision 7). However the specifics of how this will occur are not mentioned.

Under this alternative, the mechanisms to implement appropriate provisions of the State Implementation Plan, especially for Utah County would not be achieved. Lessees would not receive notice that additional air quality analysis would be required at the APD stage, of internal combustion gas field engine requirements, or required regional ozone formation BMPs.

4.2.1.2 Migratory Birds

Section 3.3.2 Migratory Birds, a table identifies the migratory birds that are most likely to inhabit the parcels based on known occurrence and available habitats. As discussed previously, migratory birds receive protections from “take” under the Migratory Bird Treaty Act and Executive Order (EO) 13186.

Construction and development activities can effect migratory birds nesting season from as early as February 15 however activity from May 1 through July 31st pose the greatest impact to migratory birds by disrupting breeding behavior and breeding success. Examples of impacts to nesting migratory birds include nest abandonment, nest failure and chick mortality. Other impacts include breeding or wintering habitat loss and fragmentation from development and human disturbance through noise, dust and construction.

Neither the PE RMP nor the BREO&GA have any restrictions addressing migratory birds with the exception of raptors. Both documents impose timing restrictions for protection of raptor nesting and roosting habitat. This timing limitation restricts exploration, drilling, and other development activity between March 1 and July 15 of every year within 0.5 miles of raptor nesting sites. However, the Alternative A would not include the BMPs identified for raptors and their associated habitats (BLM 2006a) and so would not be as protective of these resources as the Proposed Action alternative.

Under this alternative, implementation of avoidance measures, typically within the 200 meter/60-day rule would provide protection where necessary to protect these species during crucial seasonal periods, such as nesting and wintering and in important habitats.

4.2.1.3 Threatened, Endangered, Candidate Special Status Animal Species

Canada Lynx

The BREO&GA did not address the Canada lynx in its analysis nor have any restrictions related to T&E species. Habitat loss from the proposed action is projected to be minimal (up to 6.8 acres for the entire parcel) and therefore the impacts to Canada lynx are also expected to be minimal. If a well and infrastructure were to be developed on this 1665.34 acre parcel of which approximately 1093 acres are lynx habitat, both direct and indirect impacts to lynx are not expected to effect the population. Direct effects could include loss of habitat; physiological stress, loss of individuals from vehicles with increased traffic on infrastructure, the increased possibility of unintentional take and harassment of animals, the possibility of illegal hunting and harassment of animals. Indirect effects could include the loss of habitat because of fragmentation, the creation of edge and noise, the loss of prey species due to loss of habitat and human hunting. The Endangered Species Act (ESA) would apply and provide protection for the species. The ESA requires federal agencies, in consultation with the U.S. Fish and Wildlife Service ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of designated critical habitat of such species. The law also prohibits any action that causes a "taking" of any listed species of endangered fish or wildlife. Likewise, import, export, interstate, and foreign commerce of listed species are all generally prohibited.

The two ESA stipulations would be attached to every lease in the sale regardless of documented species or habitat presence on the parcel. The two stipulations are identified in section 2.2 and Appendix A.

Even though the habitat within parcel UT0812-004 is not classified by the USFWS as critical habitat for the Canada lynx, any proposed project within Canada lynx habitat would need to go through the consultation process with the USFWS. This alternative does not provide the protective measure that Alternative B provides which has conservation measures.

Columbia Spotted Frog

The BREO&GA did not address the Columbia spotted frog in its analysis nor have any restrictions related to sensitive or conservation agreement species. Habitat loss from the proposed action is projected to be minimal (up to 6.8 acres for the entire parcel) and therefore the impacts to Columbia spotted frog are also expected to be minimal. If a well and infrastructure were to be developed on this 1955.6 acre, habitat suitability surveys would occur to determine if Columbia spotted frog or habitat exists. Neither direct nor indirect impacts to species are not expected to effect the overall population. Direct effects could include direct loss of habitat; physiological stress, introduction of competitors, loss of individuals from vehicles with increased traffic on infrastructure and there is the increased possibility recreational collection of individuals. Indirect effects could include the loss and degradation of habitat because of fragmentation. Its habitat would be impacted by issues like runoff and less vegetation or introduction of non-native vegetation for a period of time resulting from the construction activity in the area if the development happens to be where the frog habitat exists. The BLM would follow its 6840 policy and provide protection for the species to the best of its ability.

4.2.1.4 Wildlife Excluding Special Status Species

Oil and gas exploration and development could affect wildlife resources in a variety of direct and indirect ways. Sufficient information – gathered from oil and gas exploration and development activities elsewhere in Utah, coupled with documented observation of environmental consequences of habitat alterations – exists to assess the potential impacts of oil and gas leasing and exploration on these lands. Environmental effects of the alternatives are likely to be similar to other surface and habitat-disturbing activities that affect big game species and would be direct loss of habitat; physiological stress; disturbance and displacement of individuals or populations; habitat fragmentation; introduction of competitive or non-native organisms; and secondary effects and indirect habitat loss. The majority of the lands in the analysis area would be available for leasing with standard lease terms. General protection for wildlife species is provided in accordance with 43 CFR 3162.5-1(a) and Section 6 of the standard lease form (Form 3100-11), which states that the “Lessee shall conduct operations in a manner that minimizes adverse impacts to the land, air and water, and to cultural, biological, visual, and other resources, and other land uses or users. Lessee shall take reasonable measures deemed necessary by lessor to accomplish the intent of this section.”

The PE RMP and the BREO&GA identified lands in the analysis area that would be leased with special stipulations, such as timing or controlled surface use stipulations for crucial deer and elk winter and seasonal wildlife habitat, crucial raptor nesting areas, and fawning habitats. In areas where these wildlife species or range were identified in the PE RMP and the BREO&GA , including these stipulations would protect these resources by limiting disturbance within this habitat during the time period when it would have the most detrimental impact.

The PE RMP includes a timing limitation that restricts identified crucial mule deer winter range for exploration, drilling, and other development activity between December 1 and April 15 and from December 1 through April 30 for elk winter range of every year. The BREO&GA includes timing limitations for seasonal wildlife habitat that does not allow activity from December 1 through April 15 of each year in designated areas also. The same EA provides for protection for mule deer fawning timing limitation from April 15 through July 31 and for elk calving from May 1 through June 30 of every year for Category 2 lands. It also mentions protection from April 15 through July 1 to protect pronghorn fawning. Other protection for big game and their habitat not mentioned in the RMP and the BREO&GA, would come from the ability to relocate disturbance areas up to 200 meters or to delay the activities 60 days under the 200 meter/60-day rule. Only two of the ten leases within big game habitat (UT0812-002 and 003) included on the August 2012 Oil and Gas Lease List (winter, fawning or calving) are afforded the protection of a stipulation. This alternative does not provide the conservation measures in Alternative B and therefore is less protective.

4.2.1.5 Recreation

Under this alternative, activities related to the exploration and development of the proposed leases for mineral extraction could result in some impacts with recreation uses in the analysis area. Potential conflicts could develop between lease holders and recreationists utilizing the same roads and vehicle routes to access parcels and recreational destination areas. In some situations, movement of heavy equipment and other large vehicles could cause impacts to vehicle routes which are not constructed for such intense use thus limiting recreational access or if the routes are improved for heavy equipment passage can benefit recreational access. Some parcels may

include previously established camp sites used for hunting and/or staging sites for OHV uses which could require recreationalists to locate elsewhere. In general, most areas in the field office can be accessed using a variety of routes. Fivemile Pass area has been utilized as a site for competitive events requiring special recreation permits. Exploration and development of fluid mineral resources in this area can result in the rerouting of segments of existing race courses to avoid fluid mineral exploration and development.

Parcel 132 occurs within Fivemile Pass. Visitors' recreation experience would be affected by any drilling activities in the portion of Parcel UT0812-132 within the Tenmile Pass area of the Fivemile Pass Recreation Area. The sight and sound of any exploratory drilling within this area would detract from and diminish the primitive and unconfined recreation opportunities desired by outdoor enthusiasts visiting the Fivemile Pass Recreation Area. The drill rigs are visible from a great distance. These activities could affect other recreation activities like wildlife viewing and/or hunting.

Congress established the CNHT in 1992, after the BLM issued its 1990 Record of Decision on the Pony Express RMP. The planning effort did not address the impacts of RMP decisions on the CNHT. As identified by the NPS in its Comprehensive Management and Use Plan Final Environmental Impact Statement (EIS) California National Historic Trail and Pony Express National Historic Trail (1999), concerns exist for the long term management of America's trail system including the CNHT.

As provisioned in the National Trails System MOU (06-SU-1113242-196), section IV (specific tasks), additional coordination with the affected agencies in planning and management of the CNHT would be required.

4.2.1.6 Drinking Water Source Protection Zones

Ground water quality would be maintained in accordance with State and Federal standards including consultation with State agencies. All APD operations would be monitored during drilling and reclamation stages to ensure appropriate casing, cementing and drill hole abandonment. The possibility of ground water contamination would be reduced.

Standard operating procedures required by regulation and design features contained in an approved APD would be applied to isolate and protect all usable ground or surface water sources. The SOPs include the requirements for disposal of produced water contained in Onshore Oil and Gas Order (OOGO) No. 7 and the requirements for drilling operations contained in OOGO No. 2, e.g. potential usable quality water ($\leq 10,000$ mg/L Total Dissolved Solids (TDS)) bearing zones would be isolated and protected such that the proposed casing and cementing programs shall isolate all usable water zones.

Potential impacts would be addressed and a design feature would be included utilizing UTSO IM UT 2010-055 prior to APD approval. Standard protocols would minimize possibility of releases (cased drill holes, no surface disturbance or occupancy would be maintained within 660 feet of any natural, new disturbance will be not be allowed in areas equal to the 100-year floodplain or 100 meters on either side of the center line of any stream, stream reach, or riparian area).

BLM would work in close coordination with the Utah Division of Drinking Water and the respective public water system manager to administer leasing activities that conform to the respective source protection plan.

4.2.2 Alternative B – Proposed Action, Leasing with Additional Protective Measures

4.2.2.1 Air Quality

The act of leasing would not result in changes to air quality. However, should the leases be issued, development of those leases could impact air quality conditions. It is not possible to accurately estimate potential air quality impacts by computer modeling from the project due to the variation in emission control technologies as well as construction, drilling, and production technologies applicable to oil versus gas production and utilized by various operators, so this discussion remains qualitative.

Prior to authorizing specific proposed projects on the subject lease parcels, quantitative computer modeling using project specific emission factors and planned development parameters (including specific emission source locations) may be conducted to adequately analyze direct and indirect potential air quality impacts. In conducting subsequent project specific analysis BLM will follow the policy and procedures of the National Interagency MOU Regarding Air Quality Analysis and Mitigation for Federal Oil and Gas Decisions through NEPA, and the FLAG 2010 air quality guidance document. Air quality dispersion modeling which may be required includes impact analysis for demonstrating compliance with the NAAQS, plus analysis of impacts to Air Quality Related Values (i.e. deposition, visibility), particularly as they might affect regional Class 1 areas (national parks and wilderness areas).

An oil or gas well, including the act of drilling, is considered to be a minor source under the Clean Air Act. Minor sources are not controlled by regulatory agencies responsible for implementing the Clean Air Act. In addition, control technology is not required by regulatory agencies at this point, since the majority of the parcels occur in NAAQS attainment areas. Different emission sources would result from the two site specific lease development phases: well development and well production.

Well development includes emissions from earth-moving equipment, vehicle traffic, drilling, and completion activities. NO_x, SO₂, and CO would be emitted from vehicle tailpipes. Fugitive dust concentrations would increase with additional vehicle traffic on unpaved roads and from wind erosion in areas of soil disturbance. Drill rig and fracturing engine operations would result mainly in NO_x and CO emissions, with lesser amounts of SO₂. These temporary emissions would be short-term during the drilling and completion times.

During well production there are continuous emissions from separators, condensate storage tanks, and daily tailpipe and fugitive dust emissions from operations traffic. During the operational phase of the Proposed Action, NO_x, CO, VOC, and HAP emissions would result from the long-term operation of condensate storage tank vents, and well pad separators. Additionally, road dust (PM₁₀ and PM_{2.5}) would be produced by vehicles servicing the wells.

Project emissions of ozone precursors, whether generated by construction and drilling operations, or by production operations, would be dispersed and/ or diluted to the extent where any local ozone impacts from the Proposed Action would be indistinguishable from background or cumulative conditions. The primary sources of hazardous air pollutants (HAPs) are from oil storage tanks and smaller amounts from other production equipment. Small amounts of HAPs are emitted by construction equipment. However, these emissions are estimated to be less than 1 ton per year. Based on the negligible amount of project-specific emissions, the Proposed Action is not likely to violate, or otherwise contribute to any violation of any applicable air quality

standard, and may only contribute a small amount to any projected future potential exceedance of any applicable air quality standards.

The construction, drilling, completion, testing, and production of an oil and gas well could result in various emissions that affect air quality. Construction activities result in emissions of PM₁₀. Well drilling activities result in engine exhaust emissions of NO_x, CO, and VOC. Completion and testing of the well result in emissions of VOC, NO_x, and CO. Ongoing production results in the emission of NO_x, CO, VOC, and PM₁₀.

Due to the very small level of anticipated development, an emissions inventory (EI) has not been conducted for the August 2012 Oil and Gas Lease Sale. A typical oil and gas well EI is estimated for the purpose of this analysis and is based on the following assumptions:

- Each oil and gas well would cause 6.8 acres of surface disturbance. This acreage includes access.
- Construction activity for each well is assumed to be 10 days. It is further assumed that, based on the acreage disturbed, 4.5 days would be spent in well pad construction and 5.5 days would be spent in road and pipeline construction.
- Control efficiency of 25% for dust suppression would be achieved as a result of compliance with Utah Air Quality regulation R307-205.
- Post construction particulate matter (dust) emissions are likely to occur on a short term basis due to loss of vegetation within the construction and staging areas. Assuming appropriate interim reclamation, these emissions are likely to be minimal to negligible and will not be considered in this EA.
- Drilling operations would require 14 days.
- Completions and testing operations would require 3 days.
- Off road mobile exhaust emissions from heavy equipment during construction activities and on road mobile emissions would not be considered as they are dispersed, sporadic, temporary, and not likely to cause or contribute to exceedance of the NAAQS.

If exploration occurs, short-term impacts would be stabilized or managed rapidly (within two to five years), and long-term impacts are those that would substantially remain for more than five years. Impacts to the non-attainment area in association with the Group 4 parcels would be minimal. The majority of the disturbance would be associated with the exploratory wells in Summit and eastern Utah County which is outside of the non-attainment areas.

An air quality best management practice (BMP) which discusses the amounts of NO_x emission per horse-power hour based on internal combustion engine size, would be attached to all parcels. A lease notice would be attached to all leases and would consist of the following provisions:

- All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2 grams of NO_x per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.
- All new and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gram of NO_x per horsepower-hour.

Emission factors for activities of the proposed action were based on information contained in the EPA's Emission Factors & AP 42, Volume I, Fifth Edition (EPA.1995), available at: <http://www.epa.gov/ttn/chief/ap42/index.html>. The production emissions from oil storage tanks was estimated based on the emission factor contained in the Colorado Department of Public Health and Environment PS Memo 05-01, Oil & Gas Atmospheric Condensate Storage Tank Batteries Regulatory Definitions and Permitting Guidance (CDPHE 2009), available at: <http://www.cdphe.state.co.us/ap/down/ps05-01.pdf>.

Table 6: Emissions Estimate

	Construction Emissions (Tons)	Drilling Emissions (Tons)			Completions Emissions (Tons)				Ongoing Production Emissions (Tons/year)			
	PM ₁₀	NO _x	CO	VOC	VOC	NO _x	CO	PM ₁₀	NO _x	CO	VOC	PM ₁₀
Typical Well	0.34	13.31	1.83	0.23	0.85	0.07	0.07	0.00	0.01	0.01	6.44	0.00000
Sub Total	0.34	13.31	1.83	0.23	0.85	0.07	0.07	0.00	0.01	0.01	6.44	0.00000
					PM ₁₀	NO _x	CO	VOC				
Activity Emissions (Total emissions for drilling and completion the well)					0.34	13.37	1.89	1.08	Tons			
Production Emissions (Ongoing annual emissions for the well)					0.00000	0.01	0.01	6.44	tpy			

Based on the emissions estimates contained in Table 6, and considering the location of the proposed leasing relative to population centers and Class 1 areas, substantial air resource impacts are not anticipated as a result of this leasing action, and no further analysis or modeling is warranted. Emissions resulting from the August 2012 Oil and Gas Lease Sale are not likely to result in major impacts to air quality nor are they likely to cause a violation of the NAAQS.

Best management practices (BMP) would be developed to address oil and gas development emissions that may have on regional ozone formation and would be required at the time of development on any of the leases. The regional ozone formation BMPs are:

- Tier II or better drilling rig engines
- Stationary internal combustion engine standard of 2g NO_x/bhp-hr for engines <300HP and 1g NO_x/bhp-hr for engines >300HP
- Low bleed or no bleed pneumatic pump valves
- Dehydrator VOC emission controls to +95% efficiency
- Tank VOC emission controls to +95% efficiency

Additional air quality control measures may be warranted and imposed at the APD stage. These control measures are dependent on future regional modeling studies, other analysis or changes in regulatory standards.

4.2.2.2 Migratory Birds

The migratory birds identified in the table in Section 3.3.2 could be impacted in a similar way as described in section 4.2.1.2 under Alternative A. However, Construction and development activities can effect migratory birds nesting season from as early as February 15 however activity from May 1 through July 31st pose the greatest impact to migratory birds by disrupting breeding behavior and breeding success. Examples of impacts to nesting migratory birds include nest abandonment, nest failure and chick mortality. Other impacts include breeding or wintering habitat loss and fragmentation from development and human disturbance through noise, dust and construction. This alternative includes an additional lease notice to inform the lessee that surveys for nesting migratory birds may be required during migratory bird breeding season whenever surface disturbances and/or occupancy is proposed in priority habitats. Surveys would focus on identified priority bird species in Utah. Based on the field survey, the authorized officer in coordination with the biologist will determine appropriate buffers and timing limitations necessary to protect the bird under the above law and EO.

This alternative also would include adding a lease notice for the protection of raptors wherein surveys would be required whenever disturbances and/or occupancy is proposed in association with oil and gas exploration and development within potential raptor protection buffer areas. Appropriate buffers and timing limitations would be determined based on the Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances (Romin and Muck 2002). Specifically, burrowing owls, golden eagles, and peregrine falcons would need additional protection from surface disturbing activities than is allowed for under the Alternative A – Leasing Under the Existing Land Use Plans. These measures would provide greater protection than is currently mandated by the PE RMP and the BREO&GA and would comply with the non-statutory regulation of the Migratory Bird Treaty Act and EO 13186. A lease notice for migratory birds and raptors would be attached to all of the leased parcels. Parcels UT0812-026, UT0812-027, UT0812-132 and UT0812-159 have golden eagle nesting territories; therefore the following lease notice specifically notifying the lessee of this would be attached.

4.2.2.3 Threatened, Endangered, Candidate or Special Status Animal Species

Under Alternative B lease parcel UT0812-004 would include information on conservation measures that would be applied at the project stage to protect Canada lynx and their habitat. These conservation measures were developed in coordination with the USFWS in 2007. Programmatic consultation was completed with the USFWS on April 7, 2007 on the Canada lynx. Through this consultation, the BLM agreed to attach the Canada lynx lease notice (T&E-10) to all lease parcels that contain the species or its habitat. The lease notice provides full disclosure to the lessee of the environmental concerns and strategies to minimize the effect of any project on the species and its habitat. The information within the lease notice will also allow industry to consider environmental issues before finalizing development plans, therefore minimizing financial and logistical burdens. Implementation of the lease notice should also result in a streamlined, more efficient consultation process at the development stage, especially if all conservation measures are taken into account by the proponent,

Since the BLM has programmatically consulted with USFWS on the lease notice and it includes important conservation measures for the species where the BREO&GA is silent.

The drainages on the east side of Weber River (Parcels UT0812-003) may support amphibians including the special status species, the Columbia spotted frog, if springs are present providing overwintering and vegetated margins for breeding habitat. Recent surveys have not been conducted for this species. Development within this parcel could potentially impact an aquatic Conservation Agreement Species and its native habitats. If habitat is identified in within the area when development is proposed then specifics within the conservation agreement will need to be carried forward. To comply with the intent of the Conservation Agreement, the lessee needs to be aware of the conservation agreement and that there is a requirement within it to coordinate with BLM, UDWR, and USFWS to meet special requirements needed specific to the agreement.

For aquatic species: appropriate measures to minimize the risk of spreading aquatic exotic species (mussels, purple loosestrife, mosquito fish, and melanoides snail) should be developed in coordination with UDWR. Surface pumping for water may not be allowed depending on the sources proximity to sensitive habitat, no surface disturbance within the 100-year floodplain, and project activities should avoid changing ground and surface hydrology.

4.2.2.4 Wildlife Excluding Special Status Species

Additional protections for general wildlife and crucial habitats would be implemented under this alternative and the location and timing of some activities may be changed compared to the No Action alternative. Special stipulations for the protection of wildlife were identified in the PE RMP and the BREO&GA for areas where those resources were known (Table 1). Since that time, however, new information has become available and ranges of some animals have expanded into areas that would not be protected with the stipulations in the PE RMP and the BREO&GA. Therefore, the Proposed Action alternative would include additional resource protective measures for wildlife that would inform the lessee of action that would be taken at the project level that would lessen the impacts from exploration and development activities to wildlife species compared to the No Action alternative.

Provisions are present within Section 6 of the Standard Lease Form (BLM Form 3100-11, Appendix C) which state that the "...lessee must conduct operations in a manner that minimizes adverse impacts to the land, air, and water, to cultural, biological, visual and other resources..." Section 6 of the Standard Lease Form (BLM Form 3100-11) also allows the BLM to impose additional restrictions at the permitting phase, if the restrictions prevent violation of law, policy or regulation, or avoid undue and unnecessary degradation of lands or resources. Resource protective measures for general wildlife that could be applied under this alternative include expanding the geographic area and the use of timing limitations for crucial winter mule deer and elk (December 1-April 15) beyond that identified in the PE RMP and the BREO&GA, and specifying timing limitations for crucial elk calving, deer fawning (May 1-June 30) including crucial year-long habitat for pronghorn and crucial winter range for moose (December 1-April 15), which the PE RMP and BREO&GA are silent. Parcels UT0812-222 and 224 are in crucial elk winter range which has a timing lease notice UT-LN-02 from December 1 to April 30. Lease notice UT-LN-07 would apply to parcels UT0812-222 to 224 to protect mule deer fawning habitat from May 1 to June 30.

Most parcels included on the August 2012 lease list are within what UDWR considers crucial value year-long pronghorn habitat with the exception of parcels UT0812-001 through UT0812-004, UT0812-222, UT0812-223, and UT0812-224. Pronghorn are a common sight in Tooele County and are habituated to some level of disturbance because of recreational activity in the

area. If oil and gas exploration would occur, most of the pronghorn would likely leave and may return to the area when human disturbance is minimized. There is a large expansive area in Tooele County for pronghorn and they tend to concentrate in areas around a water source. Provided activities do not interfere with their movement to and from water, disturbance would be minimal. A lease notice for crucial yearlong pronghorn habitat would be applied to the appropriate leases.

4.2.2.5 Recreation

The RFD scenario from leasing the parcels listed above would not create additional adverse impacts on recreational experiences associated with the Hastings Cutoff segment of the California National Historic Trail on parcels UT0812-152 and UT0812-159 through UT0812-161 due to the fact that other more noticeable and prominent developments have already impacted the trail corridor. The visual corridor and historic trail setting within the area has been physically altered and compromised over time by nearby developments associated with the Interstate-80 corridor, the Western Pacific railroad grade which bisect the area from east to west, the Clean Harbors Aragonite incinerator plant, and the Energy Solutions hazardous waste disposal facility. The ability of the visitor to have a quality experience related to the trail resources in the immediate area has been degraded by these existing facilities. Visitation to this segment of the Hastings Cutoff route is light and sporadic; exploratory activity in the parcels should not affect the level of visitation. Furthermore, best practices for well site mitigation could reduce the observable impacts from leasing to a level much less noticeable than the developments that already exist in this area.

Visitors' recreation experience would be affected by any drilling activities in the portion of Parcel UT0812-132 within the Tenmile Pass area of the Fivemile Pass Recreation Area. The sight and sound of any exploratory drilling within this area would detract from and diminish the primitive and unconfined recreation opportunities desired by outdoor enthusiasts visiting the Fivemile Pass Recreation Area. Drill rigs can be visible from a great distance if not placed to advantageously utilize topographic and vegetative features for screening purposes.

Leasing activities also may interfere with recreational pursuits in and adjacent to this area with public access and exploratory drilling equipment utilizing the same roads extending through this area. These effects may be compounded somewhat by the presence of two existing developments on private land in the area – a gravel operation (Topliff mine) and a large livestock water tank which currently use some of these roads. Increased traffic on these routes may result in potential conflicts.

Construction of new roads and pipelines could improve access for some types of recreational activities. However, not all recreationists would necessarily benefit from new route construction, in some cases newly constructed roads to drill pads may be gated and limited to oil company vehicles only or some recreationists would cease using certain areas because of leasing and mining activities.

No Special Recreation Permit events occur within this portion of the Fivemile Pass Recreation Area, so there would be no conflicts between permitted recreation events and lease development activities.

Impacts to the CNHT are similar to that described in Alternative A. The application of UT-LN-105 would provide notice that additional coordination with the NPS would be warranted. The planning and management concerns would remain.

4.2.2.6 Drinking Water Source Protection Zones

Impacts to drinking water source protection zones would be the same as identified in Alternative A. A lease notice UT-LN-56 Drinking Water Protection would be applied to parcels UT0812-001, UT0812-003, & UT0812-152.

4.2.3 Alternative B – No Action

This alternative (not to offer any of the nominated parcels for sale) may not meet the purpose and need for agency action. All parcels may be subject to drainage of Federal reserves by development on adjacent state or private leases.

Although drilling and production activities on federal land surfaces are restricted to leased parcels, oil and gas exploration may also be authorized on unleased public lands, on a case-by-case basis, pursuant to 43 CFR 3150.0-1. Accordingly, this alternative would not prevent direct, indirect or cumulative environmental impacts relating to oil and gas exploration activities through denial of the proposed action. Additionally, this alternative would not prevent indirect impacts relating to rights of way authorizations to support oil and gas operations on adjacent leased lands.

4.2.3.1 Air Quality

The No Action alternative would prevent future potential impacts relating to lease operations. Although drilling and production activities on federal land surfaces are restricted to leased parcels, oil and gas exploration may also be authorized on unleased public lands, on a case-by-case basis, pursuant to 43 CFR 3150.0-1. Accordingly, this alternative would not prevent direct, indirect or cumulative environmental impacts relating to oil and gas exploration activities through denial of the proposed action. Additionally, this alternative would not prevent indirect impacts relating to rights of way authorizations to support oil and gas operations on adjacent leased parcels. Lease notices would not be required for the No Action alternative.

4.2.3.2 Migratory Birds

The No Action alternative would prevent future potential impacts relating to lease operations at this time. Although drilling and production activities on federal land surfaces are restricted to leased parcels, oil and gas exploration may also be authorized on public lands that are not leased, on a case-by-case basis, pursuant to 43 CFR 3150.0-1. Accordingly, no direct, indirect or cumulative environmental impacts relating to oil and gas exploration would occur by denying the proposed action. Additionally, this alternative would not prevent indirect impacts relating to rights of way authorizations to support oil and gas operations on adjacent leased parcels. However, both of these other actions would be analyzed in a separate document but would be analyzed in a separate document. Stipulations or lease notices would not be required for the No Action alternative.

4.2.3.3 Threatened, Endangered, Candidate or Special Status Animal Species

The No Action alternative would prevent future potential impacts to Canada lynx and Columbia spotted frog relating to lease operations at this time. Although drilling and production activities on federal land surfaces are restricted to leased parcels, oil and gas geophysical exploration

operations may also be authorized on unleased public lands, on a case-by-case basis, pursuant to 43 CFR 3150.0-1. Accordingly, this alternative would not prevent direct, indirect or cumulative environmental impacts relating to oil and gas exploration activities through denial of the proposed action. Additionally, this alternative would not prevent indirect impacts relating to rights of way authorizations to support oil and gas operations on adjacent leased parcels. However, both of these other actions would be analyzed in a separate document. Stipulations or lease notices would not be required for the No Action alternative.

4.2.3.4 Wildlife Excluding Special Status Species

The No Action alternative would prevent future potential impacts relating to lease operations at this time. Although drilling and production activities on federal land surfaces are restricted to leased parcels, oil and gas geophysical exploration operations may also be authorized on unleased public lands, on a case-by-case basis, pursuant to 43 CFR 3150.0-1. Accordingly, this alternative would not prevent direct, indirect or cumulative environmental impacts relating to oil and gas exploration activities through denial of the proposed action. Additionally, this alternative would not prevent indirect impacts relating to rights of way authorizations to support oil and gas operations on adjacent leased parcels. However, both of these other actions would be analyzed in a separate document. Stipulations or lease notices would not be required for the No Action alternative. Tooele County has many acres of crucial year-round pronghorn habitat. The animals tend to concentrate in areas around a water source. Activities around water sources (sheep herder camping, dispersed camping) can interfere with their movement to and from water.

4.2.3.5 Recreation

Not leasing parcels listed above would prevent additional visual impacts to the historic setting of the trail corridor associated with the Hastings Cutoff segment of the California National Historic Trail on parcels UT0812-152 and UT0812-159 through UT0812-161. However, this would not greatly improve the quality of recreational experiences on the trail in this area due to the fact that other more noticeable and prominent developments have already impacted the trail corridor. The visual corridor and historic trail setting within the area has been physically altered and compromised over time by nearby developments associated with the Interstate-80 corridor, the Western Pacific railroad grade which bisect the area from east to west, the Clean Harbors Aragonite incinerator plant, and the Energy Solutions hazardous waste disposal facility. The ability of the visitor to have a quality experience related to the trail resources in the immediate area has been already been diminished.

Visitors' recreation experience to this portion of Fivemile Pass would not be affected by the addition of any leasing activities on Parcel UT0812-132. The primitive motorized recreation opportunities would not be diminished by the sight and sound of exploratory drilling within the area. There would be no concern with restriction of public access on roads extending through the area. Recreation within Tenmile Pass would continue to be affected by the existing developments on private property.

4.2.3.6 Drinking Water Source Protection Zones

Source protection provisions would not be required.

4.3 Cumulative Impacts

A cumulative impact is defined in Council on Environmental Quality (CEQ) regulations (40 CFR §1508.7) as —the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively major actions taking place over a period of time. Past and present actions and reasonably foreseeable future actions with the potential to contribute to cumulative effects are discussed below followed by an analysis of cumulative effects. All resource values addressed in Chapter 3 have been evaluated for cumulative effects. If, through the implementation of mitigation measures or project design features, no net effect to a particular resource results from an action, then no cumulative effects result.

A variety of activities, such as sightseeing, camping, and hunting, have occurred and are likely to continue to occur near or within some or all of the nominated parcels; these activities likely result in negligible impacts to resources because of their dispersed nature. Other activities, such as, livestock grazing, vegetation projects and wildland fire, have also occurred within some or all of the nominated parcels and are likely to occur in the future. These types of activities are likely to have a greater impact on resources in the project area because of their more concentrated nature. Because these activities are occurring within the nominated parcel boundaries, they have the potential to contribute to cumulative effects.

The cumulative impacts as described in the Land Use Plans are incorporated by reference to Chapter 4. The proposed action would contribute to these cumulative impacts by making 23 parcels available for lease sale and mineral development, with the potential for future surface disturbance should the leases be developed. It is assumed that the proposed action would add one well pad with road (and possibly a pipeline for the BREO&GA) on each lease. The No Action alternative would not contribute any cumulative impacts. The past, present, and foreseeable future actions with the potential to contribute to surface disturbance include development of new and existing mineral rights or realty actions (for example, pipeline or road rights of way) or the continuation of agricultural activities.

4.3.1 Air Quality

The Cumulative Impact Analysis Area (CIAA) for air quality is northern Utah. Based on the relatively minor levels of emissions associated with this proposed development, and the application of these BMP's, it is unlikely emissions from any subsequent development of the proposed leases would contribute to regional ozone formation in the project area, nor is it likely to contribute or cause exceedences of any NAAQS, including those within the non-attainment areas of Utah County. Other emission contributors would continue at present rates such as construction, urban development, and personal vehicle use along the Wasatch Front.

Based on the relatively minor levels of emissions associated with this proposed development, and the application of BMPs and lease notices, it is unlikely emissions from any subsequent development of the proposed leases would contribute to regional ozone formation in the project area, nor is it likely to contribute or cause exceedences of any NAAQS.

4.3.2 Migratory Birds

General cumulative impacts may include loss of habitat, habitat fragmentation, and disruption or alteration of seasonal migration routes. There are three distinct areas for CIAA for migratory birds because the activities and therefore the cumulative impacts vary for the areas. The first CIAA area is Morgan and Summit Counties and includes parcels UT0812-001 through UT0812-004. The area includes mostly private and US Forest Service Lands. Presently the area could be impacted by multiple uses such as fire, habitat conversion, OHV use and grazing, and energy and non-energy ROWs. The cumulative impact of this project to migratory birds in this CIAA would be very minimal especially with the additional protective measure applied at the APD stage.

The second CIAA is Toole and Utah Counties. This area includes parcels UT0812-23 through UT0812-28 and UT0812-132 through UT0812-164. Impacts in this area that are occurring and will continue to occur are: dispersed recreational use, motorized vehicles, fire and invasive plant species are the major threats to wildlife caused by human disturbance and creating habitat fragmentation. The Tintic Mountain area has had mining activities that has also fragmented and converted habitat from its original state. The proposed project would have very minimal impacts to migratory birds cumulatively in this area because of the very small RFD. There would potentially be additional disturbance to habitat yet not enough to effect the population of any migratory bird.

The third CIAA is the Reservation Ridge area located in the southeastern portion of Utah County. This area borders Carbon and Duchesne counties which are within the Price and Vernal Field Offices respectively. Parcels UT0812-222 through UT0812-224 occur within this CIAA. Impacts to migratory birds within this area have been and will most likely continue to be fire habitat fragmentation, vegetation treatments, habitat conversion and recreational use. There has been stewardship removal of small-sized conifers in mosaics totaling less than 1,000 acres for aspen regeneration. The project termination date is unknown. The proposed project would not add to the cumulative impacts since it is only anticipated that 6.8 acres at a maximum could be developed on each parcel. This loss of acreage would not impact the population of migratory birds in the area especially with the application of the protective measures applied at the APD stage.

4.3.3 Threatened, Endangered, Candidate, or Special Status Animal Species

The CIAA for Canada lynx and Columbia spotted frog is Summit County. Parcels UT0812-003 (frog) and UT0812-004 (lynx) are within this area. There is potential for cumulative effects to Canada lynx, including loss of habitat, habitat fragmentation, and disruption or alteration of seasonal migration routes. These could be impacted by multiple uses such as fire, habitat conversion, and energy and non-energy ROWs. The cumulative impacts will depend upon the magnitude of the actions in the area. This parcel is split-estate which includes private surface; therefore the BLM does not have any influence on the actions that occur on or around the parcel in this habitat except for any federally connected actions such as leasing.

Parcel UT08-003 is the only known parcel that may support the Columbia spotted frog. If frogs are present, impacts to the habitat may include an increase in sediment load during egg mass deposition, and reduction of available breeding habitat. Impacts to the habitat and species would be analyzed in a separate document if oil and gas exploration would proceed.

4.3.4 Wildlife Excluding Special Status Species

There is also the potential for cumulative effects to wildlife and their habitat from these activities from livestock grazing, recreation, could also result in shrub encroachment (and subsequent loss of nutritious forbs and grasses) and alteration of fire ecology. Impacts to wildlife could also occur where OHV use denudes soil and creates gullies. OHV use could cause habitat loss and fragmentation, proliferation of noxious weeds, and direct disturbance of individuals, resulting in interruption of above-ground foraging and other life-sustaining activities. Impacts to wildlife from the actions proposed in this analysis would be reduced by best management practices and measures implemented for their protection.

Parcels UT0812-1 to UT0812-3, occurring within Morgan and Summit counties are in higher elevations and precipitation zones with lodgepole pine and aspen plant communities. Additionally, these parcels are closer to water sources are of a higher value habitat because of the water and riparian zone. The parcels in the drainage of the Weber River probably receive less recreational activity than Weber River itself due to the ephemeral nature of the water resources.

Parcels UT0812-23 to UT0812-28, UT0812-132-233 in Tooele County occur in semi-arid, lower elevation areas. Since these parcels are closer to an urban-interface with Salt Lake City, dispersed recreational use and motorized use, fire and invasive plants pose the largest threat to wildlife creating human disturbance or habitat fragmentation.

Parcels UT0812-222 to UT0812-224 occurs in Spanish Fork in Utah County. The plant community is mixed conifer and aspen. A campground exists on the eastern end in and recreational use along Reservation Ridge that may impact wildlife through habitat destruction, habitat fragmentation or human disturbance.

Parcels UT0812-132 and UT0812-133 are in the historic mining district of the Tintic Mountains in Utah and Tooele counties. The plant communities representative of these parcels are Wyoming big sagebrush and juniper woodlands. Many two-track roads and trash are near these parcels indicating high recreational use. Fires have occurred recently in the Tintics as well.

4.3.5 Recreation

Cumulative impacts within the Fivemile Pass area include proliferation of motorized vehicle routes, generally for hunting and other recreational activities. During exploration, drilling operations may reduce the quality of recreational experiences in adjacent and nearby areas. Reduction in public access may limit recreational use of the area. Upon reclamation, recreation activities could be restored to what they were previous to oil and gas exploratory operations although access may continue to be restricted in areas that have not been successfully reclaimed. Also, any roads that are left unreclaimed or only partially reclaimed may continue to be used by recreationists which could result in the extension of motorized activities into areas which are currently used for non-mechanized recreational activities.

Cumulative impacts within the parcels along I-80 and the Hastings Cutoff segment of the California NHT would not exceed the current level of mechanized use. Visual impacts would not overtly impact recreational experience along the trail segment because of existing highway and other facilities. OHV use in the area would not be diminished by exploration activity since there are numerous other routes to the north of the parcels which also provide access into the Grassy Mountains.

4.3.6 Drinking Water Source Protection Zones

As per IM 2010-055 BLM will require the continued protection of all usable ground water zones, as defined in Onshore Oil and Gas Order No. 2, associated with oil and gas exploration and development. Sole Source Aquifers and Drinking Water Source Protection Zones, subsets of usable water, are designated drinking water aquifers that may require additional analysis at the time of APD approval.

At the time of exploration and/or development, operators/lessees must adhere to the BLM's rules and regulations outlined in 43 CFR §3160, the operational requirements in Onshore Oil and Gas Orders Nos. 1, 2 and 7, and the guidance in the Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development - The Gold Book.

5.0 CONSULTATION AND COORDINATION

5.1 Introduction

The issue identification section of Chapter 1 identifies those issues analyzed in detail in Chapter 4. The Interdisciplinary Team Checklist provides the rationale for issues that were considered but not analyzed further. The issues were identified through the public and agency involvement process described in sections 5.2 and 5.3 below.

5.2 Persons, Groups, and Agencies Consulted

Table 7: List of all Persons, Agencies and Organizations Consulted for Purposes of this EA.

Name	Purpose & Authorities for Consultation or Coordination	Findings & Conclusions
National Park Service	Coordinated with as leasing program partner.	Letter transmitting the preliminary list was sent on 11/4/11. Coordination is ongoing.
National Trails Intermountain Region Branch Office	Coordinated with as national trails program partner.	An email was sent from the SLFO to several trail organizations including the NPS on 4/11/12. BLM also coordinated with this office on May 9, 2012, regarding the NPS's Record of Decision for the Comprehensive Management and Use Plan Final Environmental Impact Statement (EIS) California National Historic Trail and Pony Express National Historic Trail (1999).
United States Fish and Wildlife Service	Coordinated with as leasing program partner.	Letter transmitting the preliminary list was sent on 11/4/11. A follow-up email was sent transmitting the corresponding shapefiles. USFWS concurrence was received on April 28, 2012.
United States Forest Service	Coordinated with as leasing program partner.	Letter transmitting the preliminary list was sent on 11/4/11. A response was not received.
Public Lands Policy Coordination Office	Coordinated with as leasing program partner.	Letter transmitting the preliminary list was sent on 11/4/11. BLM contacted the PLPCO office on 5/3/2012. Concerns were not expressed.
Utah Division of Wildlife Resources	Coordinated with as leasing program partner.	Letter transmitting the preliminary list was sent on 11/4/11. A follow-up email was sent transmitting the corresponding shapefiles. UDWR provided comments to BLM on 2/24/12.
State Institutional Trust Lands Administration	Coordinated with as leasing program partner.	Letter transmitting the preliminary list was sent on 11/4/11. Comments will be coordinated by PLPCO.

Hill Air Force Base	Coordinated with as leasing program partner.	A list of preliminary parcels and corresponding shapefiles that occurred within the MOA were forwarded to HAF on 11/3/11. On 11/22/11, HAF responded and edits were made to the UTTR lease notice. Additional coordination is not required at this time because MOA parcels were deferred.
State Historic Preservation Office	Consultation as required by NHPA (16 USC 1531)	A determination No Historic Properties Affected was sent to the SHPO on 4/9/12. SHPO concurrence was received on 4/24/2012.
Confederated Tribes of the Goshute Reservation, Skull Valley Band of the Goshute Tribe, Paiute Tribe, Ute Indian Tribe, Northwestern Band of Shoshoni Nation and Eastern Shoshone	Consultation as required by the American Indian Religious Freedom Act of 1978 (42 USC 1531) and NHPA (16 USC 1531)	Consultation was initiated on 3/15/2012. Coordination is ongoing. Two Tribes responded (Paiute and Skull Valley Band of the Goshute) but did not identify concerns. Coordination and consultation would continue up until the lease auction.
Private Landowners	Interested Party Coordination	Letters were sent informing them of the lease sale. Comments or concerns were not expressed to the BLM.
National Trails Organizations	Interested party coordination	In an email from the SLFO to several national trails organizations, two comments were received from OCTA and the NPS. They are addressed in Appendix D.

5.3 Summary of Public Participation

Section 1.6 Identification of Issues of this EA, describes the public participation process used to identify the issues that are analyzed. The public participation process included a notification posted on the ENBB (<https://www.blm.gov/ut/enbb>).

BLM will utilize and coordinate the NEPA public participation requirements to assist the agency in satisfying the public involvement requirements under Section 106 of the National Historic Preservation Act (NHPA) (16 U.S.C. 470(f) pursuant to 36 CFR 800.2(d)(3). The information about historic and cultural resources within the area potentially affected by the proposed project/action/approval will assist the BLM in identifying and evaluating impacts to such resources in the context of both NEPA and Section 106 of the NHPA. BLM is consulting with Native American Tribes on a government-to-government basis. Federal, State, and local agencies, along with tribes and other stakeholders that may be interested in or affected by the lease sale were invited to participate in the scoping process.

A 30-day public review and comment period for the EA and unsigned FONSI was offered from March 30, 2012 to April 30, 2012. BLM received e-mailed comments from the following:

- Oregon California Trails Association
- National Park Service, National Trails Intermountain Region
- Southern Utah Wilderness Alliance

5.3.1 Modifications Based Public Comment and Internal Review

The public comment period and internal review identified necessary corrections or clarifications to this EA. These modifications include:

1. Corrections to grammar, sentence structure, and formatting were made throughout the EA. In general, these changes were made without further clarification. Examples include: updates to the Table of Contents, changes in font size, changes in verb tense and style or insertion of footnotes. Redundant paragraphs or words were deleted. A May 2012 date was inserted into the header of each page to distinguish from the March 2012 version of the EA.
2. Section 1.5: the document list was updated to incorporate the NPS's Comprehensive Management and Use Plan Final Environmental Impact Statement (EIS) California National Historic Trail and Pony Express National Historic Trail (1999) and the 2006 The National Trails System Memorandum of Understanding.
3. Section 2.2: Table 1 acreages do not reflect the legal land description changes made in Appendix A for parcels UT0812-023, UT0812-025, UT0812-028, UT0812-133, UT0812-147, and UT0812-152.
4. Section 5.2: Table 7 was updated to include coordination with trails groups and the National Trails Intermountain Region Branch Office. The findings were also updated for the USFS, PLPCO, UDWR, SHPO, and private landowners.
5. Sections 4.2.1.5 and 4.2.2.5: were updated to include additional discussion regarding the impacts of leasing on the CNHT.
6. Sections 5.3, 5.3.1 and 5.3.2: were updated based on public comment and internal review.
7. Section 6.1: references were inserted for documents that were utilized in preparing this EA.
8. Appendix A: parcel UT0812-001 was edited to delete the notation "(only east ½ sec. 10)" from lease notice UT-LN-03. The lease notice UT-LN-XX was also deleted. To exclude rail road right of ways, the legal description and corresponding acreages were updated on parcels UT0812-023, UT0812-025, UT0812-028, UT0812-133, UT0812-147, and UT0812-152.

Some of the stipulations and notices were re-positioned to follow the correct numeric sequence. Stipulations and notices were not inserted or deleted.

9. Appendix C: was updated to address SHPO's concurrence under the cultural resources section. The recreation section was also updated to specify the application of national historic trail lease notice. Lastly, the environmental coordinator and authorized officer signature blocks were signed.
10. Appendix D: a comment and response table was inserted.

5.3.2 Response to Public Comment

The BLM received 3 emailed responses from the public during the comment period. Public comments and BLM responses are summarized in Appendix D. Section 5.3.1 Modifications Based on Public Comments and Internal Review identifies changes to this EA that were made as a result of public comments. The comments focused on the management of the California National Historic Trail, coordination with the Environmental Protection Agency, public participation in the parcel site visits, and parcels located within greater sage-grouse habitats.

The BLM acknowledges the support and concerns expressed by the public regarding the leasing of oil and gas resources on the public lands within the SLFO, including the subject lease parcels.

Information within the comments that is background or general in nature was reviewed; however, responses to or clarifications made to the EA from these items are not necessary. Likewise, expressions of position or opinion are acknowledged but do not cause a change in the analysis. As identified in the NEPA Handbook (H-1790-1, section 6.9.2.2 comment response), BLM looked for modifications to the alternatives and the analysis as well as factual corrections while reviewing public comments.

5.4 List of Preparers

Table 8: The Preparers of This Environmental Analysis.

Name	Title	Responsible for the Following Section(s) of this Document
Ray Kelsey JuLee Pallette	Outdoor Recreation Planner	Recreation; Visual Resources; Lands with Wilderness Characteristics
Michael Sheehan	Archaeologist	Cultural Resources; Native American Religious Concerns
Traci Allen	Wildlife Biologist	Fish and Wildlife, Threatened, Endangered, Candidate and Sensitive Species (Flora and Fauna); Migratory Birds
Cindy Ledbetter	Environmental Specialist	NEPA Coordination
Larry Garahana	Geologist	Project Lead
Leonard Herr	Physical Scientist	Air Quality

Refer also the interdisciplinary team members identified on the checklist (Appendix C).

6.0 REFERENCES, ACRONYMS AND APPENDICES

6.1 References Cited

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- United States Fish and Wildlife Service. 2008. Birds of Conservation Concern 2008. United States Department of Interior, Fish and Wildlife Service, Division of Migratory Bird Management, Arlington, Virginia. 85 pp. [Online version available at <<http://www.fws.gov/migratorybirds/>>]

6.2 List of Acronyms

APD	Application for Permit to Drill	PLPCO	Public Lands Policy Coordination Office
BLM	Bureau of Land Management	RFAS	Reasonably Foreseeable Action Scenario
BMP	Best Management Practice	RFD	Reasonably Foreseeable Development
BCR	Bird Conservation Region	ROD	Record of Decision
CFR	Code of Federal Regulations	ROW	Right of Way
CIAA	Cumulative Impact Analysis Area	RMP	Resource Management Plan
COA	Condition of Approval	S	Stipulation
CWCS	Comprehensive Wildlife Conservation Strategy	SHPO	State Historic Preservation Office
DR	Decision Record	SITLA	State Institutional Trust Lands Administration
EA	Environmental Assessment	SLFO	Salt Lake Field Office
EAR	Environmental Analysis Record	SUPO	Surface Use Plan of Operations
EIS	Environmental Impact Statement	TCP	Traditional Cultural Property
ENBB	Environmental Notification Bulletin Board	UDAQ	Utah Division of Air Quality
EOI	Expression of Interest	UDWR	Utah Division of Wildlife Resources
EPA	Environmental Protection Agency	USFS	United States Forest Service
ESA	Endangered Species Act	USFWS	United States Fish & Wildlife Service
FLPMA	Federal Land Policy and Management Act	USC	United States Code
FONSI	Finding of No Significant Impact	UTSO	Utah State Office
GIS	Geographic Information Systems	WO	Washington Office
IDPR	Interdisciplinary Parcel Review		
IM	Instruction Memorandum		
LN	Lease Notice		
LWC	Lands with Wilderness Characteristics		
MS	Mineral Survey		
MBTA	Migratory Bird Treaty Act		
MOU	Memorandum of Understanding		
NCLS	Notice of Competitive Lease Sale		
NEPA	National Environmental Policy Act		
NHPA	National Historic Preservation Act		
NRHP	National Register of Historic Places		
NSO	No Surface Occupancy		
OSHA	Occupational Safety and Health Act		

6.3 Appendices

Appendix A, Preliminary Oil and Gas Lease Sale List

Appendix B, Maps of Parcels

Appendix C, Interdisciplinary Team Checklist

Appendix D, Response to Public Comments

APPENDIX A – PRELIMINARY OIL AND GAS LEASE SALE LIST

In addition to the Stipulations and Notices listed below, the direction provided in WO IM 2005-003 (Cultural Resources Stipulation) and WO IM 2002-174 (Endangered Species Act Stipulation) would be applied to all parcels.

UT0812 – 001

T. 2 N., R. 4 E., Salt Lake

Sec. 4: Lots 1-3, 6-8, 11, 13, 14, 18-20, SW;

Sec. 8: S2NE, SENW, NESW, S2SW, SE;

Sec. 10: Lots 1, 2, 4, 5, 7-10, 12, 13, 15, 16.

1,397.61 Acres

Morgan County, Utah (372.00 Acres)

Summit County, Utah (1,199.63 Acres)

Salt Lake Field Office

STIPULATION

UT-S-265: CSU/TL – Crucial Raptor Nesting Sites

NOTICES

UT-LN-03: Crucial Mule Deer and Elk Winter Range

UT-LN-07: Crucial Elk Calving and Deer Fawning Habitat

UT-LN-44: Raptors

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-56: Drinking Water Source Protection

UT-LN-99: Regional Ozone Formation Controls

UT-LN-101: Air Quality

UT-LN-102: Air Quality Analysis

UT0812 – 002

T. 1 N., R. 5 E., Salt Lake

Sec. 6: Lots 1-7, SWNE, SENW, E2SW.

440.13 Acres

Summit County, Utah

Salt Lake Field Office

STIPULATIONS

UT-S-265: CSU/TL – Crucial Raptor Nesting Sites

UT-S-301: TL – Seasonal Wildlife Habitat

NOTICES

UT-LN-44: Raptors

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-99: Regional Ozone Formation Controls

UT-LN-101: Air Quality

UT-LN-102: Air Quality Analysis

UT0812 – 003

T. 2 N., R. 5 E., Salt Lake

Sec. 14: W2, SE;

Sec. 22: E2NE, N2SE;

Sec. 24: NE,S2;

Sec. 26: Lots 1, 3-6, E2E2;

Sec. 30: SE;

Sec. 34: S2N2, SE.

1,955.60 Acres

Summit County, Utah

Salt Lake Field Office

STIPULATIONS

UT-S-265: CSU/TL – Crucial Raptor Nesting Sites

UT-S-301: TL – Seasonal Wildlife Habitat

NOTICES

UT-LN-03: Crucial Winter Mule Deer and Elk Habitat

UT-LN-07: Crucial Elk Calving and Deer Fawning Habitat

UT-LN-24: Crucial Moose Winter Range

UT-LN-44: Raptors

UT-LN-45: Migratory Birds

UT-LN-48: Conservation Agreement Species

UT-LN-49: Utah Sensitive Species

UT-LN-56: Drinking Water Source Protection

UT-LN-99: Regional Ozone Formation Controls

UT-LN-101: Air Quality

UT-LN-102: Air Quality Analysis

UT0812 – 004

T. 3 N., R. 10 E., Salt Lake

Sec. 14: All;

Sec. 22: NE, N2SW, NWSE;

Sec. 24: N2, NESW, NWSE;

Sec. 26: All.

1,665.34 Acres

Summit County, Utah

Salt Lake Field Office

STIPULATION

UT-S-265: CSU/TL – Crucial Raptor Nesting Sites

NOTICES

T&E 10: Canada Lynx

UT-LN-03 Crucial Winter Mule Deer and Elk Habitat

UT-LN-07 Crucial Elk Calving and Deer Fawning Habitat

UT-LN-24: Crucial Moose Winter Range

UT-LN-44: Raptors

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-48: Conservation Agreement Species

UT-LN-99: Regional Ozone Formation Controls

UT-LN-101: Air Quality

UT-LN-102: Air Quality Analysis

UT0812 – 023

T. 1 N., R. 10 W., Salt Lake

Secs. 12, 14 and 15: All.

Sec. 13: All excluding RR ROW SL062680 (7 ac.).

2,553.00 Acres

Tooele County, Utah

Salt Lake Field Office

STIPULATION

UT-S-265: CSU/TL – Crucial Raptor Nesting Sites

NOTICE

UT-LN-19: Crucial Pronghorn Yearlong

UT-LN-44: Raptors

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-99: Regional Ozone Formation Controls

UT-LN-101: Air Quality

UT-LN-102: Air Quality Analysis

UT0812 – 024

T. 1 N., R. 10 W., Salt Lake

Secs. 17, 18, 19 and 20: All.

2,554.36 Acres

Tooele County, Utah

Salt Lake Field Office

STIPULATION

UT-S-265: CSU/TL – Crucial Raptor Nesting Sites

NOTICES

UT-LN-19: Crucial Pronghorn Yearlong

UT-LN-44: Raptors

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-99: Regional Ozone Formation Controls

UT-LN-101: Air Quality

UT-LN-102: Air Quality Analysis

UT0812 – 025

T. 1 N., R. 10 W., Salt Lake

Secs. 21 and 22: All;

Sec. 23: N2, N2S2, SWSW, S2SE excluding RR ROW SL062680 (6 ac.);

Sec. 24: N2, N2S2, Excluding RR ROW SL062680 (30 ac.).

2,324.00 Acres

Tooele County, Utah

Salt Lake Field Office

STIPULATION

UT-S-265: CSU/TL – Crucial Raptor Nesting Sites

NOTICES

UT-LN-19: Crucial Pronghorn Yearlong

UT-LN-44: Raptors

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-99: Regional Ozone Formation Controls

UT-LN-101: Air Quality

UT-LN-102: Air Quality Analysis

UT0812 – 026

T. 1 N., R. 10 W., Salt Lake
Sec. 26: W2;
Secs. 27, 28 and 29: All.
2,240.00 Acres
Tooele County, Utah
Salt Lake Field Office

STIPULATION

UT-S-265: CSU/TL – Crucial Raptor Nesting Sites

NOTICES

UT-LN-19: Crucial Pronghorn Yearlong
UT-LN-40: Golden Eagles
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-99: Regional Ozone Formation Controls
UT-LN-101: Air Quality
UT-LN-102: Air Quality Analysis

UT0812 – 027

T. 1 N., R. 10 W., Salt Lake
Secs. 30 and 31: All.
1,277.68 Acres
Tooele County, Utah
Salt Lake Field Office

STIPULATION

UT-S-265: CSU/TL – Crucial Raptor Nesting Sites

NOTICES

UT-LN-19: Crucial Pronghorn Yearlong
UT-LN-40: Golden Eagles
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-99: Regional Ozone Formation Controls
UT-LN-101: Air Quality
UT-LN-102: Air Quality Analysis

UT0812 – 028

T. 1 N., R. 10 W., Salt Lake

Secs. 33: All;

Sec/ 34: All excluding RR ROW SL062680 (14 ac.);

Sec. 35: W2 excluding RR ROW SL062680 & SL06344 (23 ac.).

1,563.00 Acres

Tooele County, Utah

Salt Lake Field Office

STIPULATION

UT-S-265: CSU/TL – Crucial Raptor Nesting Sites

NOTICES

UT-LN-19: Crucial Pronghorn Yearlong

UT-LN-44: Raptors

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-99: Regional Ozone Formation Controls

UT-LN-101: Air Quality

UT-LN-102: Air Quality Analysis

UT0812 – 132

T. 8 S., R. 3 W., Salt Lake

Sec. 3: Lots 1-12, 14-15;

Sec. 10: Lots 1-3, 5-11;

Sec. 11: Lot 1, W2E2, NW, N2SW, SESW;

Sec. 14: Lots 1, 2, W2E2, E2NW, SW;

Sec. 15: Lots 5-13, S2NW, SW.

2,079.33 Acres

Utah County, Utah (1,676.20 Acres)

Tooele County, Utah (403.13 Acres)

Salt Lake Field Office

STIPULATION

UT-S-265: CSU/TL – Crucial Raptor Nesting Sites

NOTICES

UT-LN-19: Crucial Pronghorn Yearlong

UT-LN-40: Golden Eagles

UT-LN-44: Raptors

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-99: Regional Ozone Formation Controls

UT-LN-101: Air Quality

UT-LN-102: Air Quality Analysis

UT0812 – 133

T. 8 S., R. 3 W., Salt Lake

Sec. 21: Lots 1-3, E2, E2W2;

Sec. 22: All;

Sec. 23: Lots 2-7, 10-15.

1,653.61 Acres

Utah County, Utah (370.76 Acres)

Tooele County, Utah (1,523.66 Acres)

Salt Lake Field Office

STIPULATION

UT-S-265: CSU/TL – Crucial Raptor Nesting Sites

NOTICES

UT-LN-19: Crucial Pronghorn Yearlong

UT-LN-44: Raptors

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-99: Regional Ozone Formation Controls

UT-LN-101: Air Quality

UT-LN-102: Air Quality Analysis

UT0812 – 147

T. 1 S., R. 10 W., Salt Lake

Sec. 3: All excluding RR ROW SL062680 (17 ac.);

Sec. 4: E2SE, E2E2SWSE;

Sec. 9: E2NE, E2 W2NE, E2W2SWNE, SE;

Sec. 10: All;

Sec. 11: W2NW, NWSW.

1,759.24 Acres

Tooele County, Utah

Salt Lake Field Office

STIPULATION

UT-S-265: CSU/TL – Crucial Raptor Nesting Sites

NOTICES

UT-LN-19: Crucial Pronghorn Yearlong

UT-LN-44: Raptors

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-99: Regional Ozone Formation Controls

UT-LN-101: Air Quality

UT-LN-102: Air Quality Analysis

UT0812 – 152

T. 1 S., R. 10 W., Salt Lake

Sec. 4: Lot 1-4, S2NW, W2SW, W2NESW, W2W2SESW, Excluding RR ROW

SL062680 (20 ac.);

Secs. 5 and 8: All excluding RR ROW SL062680 (42 ac.);

Sec. 6: All;

Sec. 9: NWNW, W2E2SWNW, W2SWNW, W2W2SW.

2,328.68 Acres

Tooele County, Utah

Salt Lake Field Office

STIPULATION

UT-S-265: CSU/TL – Crucial Raptor Nesting Sites

NOTICE

UT-LN-19: Crucial Pronghorn Yearlong

UT-LN-44: Raptors

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-56: Drinking Water Source Protection

UT-LN-99: Regional Ozone Formation Controls

UT-LN-101: Air Quality

UT-LN-102: Air Quality Analysis

UT-LN-105: National Historic Trail

UT0812 – 159

T. 1 S., R. 11 W., Salt Lake

Secs. 1, 11, 12 and 13: All.

2,553.04 Acres

Tooele County, Utah

Salt Lake Field Office

STIPULATION

UT-S-265: CSU/TL – Crucial Raptor Nesting Sites

NOTICE

UT-LN-19: Crucial Pronghorn Yearlong

UT-LN-40: Golden Eagles

UT-LN-44: Raptors

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-99: Regional Ozone Formation Controls

UT-LN-101: Air Quality

UT-LN-102: Air Quality Analysis

UT-LN-105: National Historic Trail

UT0812 – 160

T. 1 S., R. 11 W., Salt Lake

Secs. 3, 4, 9 and 10: All.

2,543.64 Acres

Tooele County, Utah

Salt Lake Field Office

STIPULATION

UT-S-265: CSU/TL – Crucial Raptor Nesting Sites

NOTICES

UT-LN-19: Crucial Pronghorn Yearlong

UT-LN-44: Raptors

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-99: Regional Ozone Formation Controls

UT-LN-101: Air Quality

UT-LN-102: Air Quality Analysis

UT-LN-105: National Historic Trail

UT0812 – 161

T. 1 S., R. 11 W., Salt Lake

Secs. 5, 6, 7 and 8: All.

2,487.67 Acres

Tooele County, Utah

Salt Lake Field Office

STIPULATION

UT-S-265: CSU/TL – Crucial Raptor Nesting Sites

NOTICES

UT-LN-19: Crucial Pronghorn Yearlong

UT-LN-44: Raptors

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-99: Regional Ozone Formation Controls

UT-LN-101: Air Quality

UT-LN-102: Air Quality Analysis

UT-LN-105: National Historic Trail

UT0812 – 162

T. 1 S., R. 11 W., Salt Lake

Secs. 14, 15, 22 and 23: All.

2,560.00 Acres

Tooele County, Utah

Salt Lake Field Office

STIPULATION

UT-S-265: CSU/TL – Crucial Raptor Nesting Sites

NOTICES

UT-LN-19: Crucial Pronghorn Yearlong

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-99: Regional Ozone Formation Controls

UT-LN-101: Air Quality

UT-LN-102: Air Quality Analysis

UT0812 – 163

T. 1 S., R. 11 W., Salt Lake

Sec. 17: All;

Sec. 18: Lot 1, 3, 4, E2, E2W2;

Sec. 19: Lot 1-3, NE, E2NW, NESW, N2SE;

Sec. 20: All.

2,322.25 Acres

Tooele County, Utah

Salt Lake Field Office

STIPULATION

UT-S-265: CSU/TL – Crucial Raptor Nesting Sites

NOTICES

UT-LN-19: Crucial Pronghorn Yearlong

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-99: Regional Ozone Formation Controls

UT-LN-101: Air Quality

UT-LN-102: Air Quality Analysis

UT0812 – 164

T. 1 S., R. 11 W., Salt Lake

Sec. 21: All;

Sec. 28: E2, E2W2, N2NWNW, N2SWNWNW, SENWNW, NESWNW, S2NWSWNW, NWSW, N2SWSW, N2SWSWSW, SESWSWSW, SESWSW;

Sec. 33: E2, E2W2, E2W2W2, E2W2W2W2.

1,867.50 Acres

Tooele County, Utah

Salt Lake Field Office

STIPULATION

UT-S-265: CSU/TL – Crucial Raptor Nesting Sites

NOTICES

UT-LN-19: Crucial Pronghorn Yearlong

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-99: Regional Ozone Formation Controls

UT-LN-101: Air Quality

UT-LN-102: Air Quality Analysis

UT0812 – 222

T. 11 S., R. 8 E., Salt Lake

Sec. 13: Lots 1-6, NE;

Sec. 14: Lots 9, 10 and 12, N2SW.

477.45 Acres

Utah County, Utah

Salt Lake Field Office

STIPULATION

UT-S-265: CSU/TL – Crucial Raptor Nesting Sites

NOTICES

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-99: Regional Ozone Formation Controls

UT-LN-101: Air Quality

UT-LN-102: Air Quality Analysis

UT0812 – 223

T. 11 S., R. 9 E., Salt Lake

Sec. 3: Lot 3;

Sec. 4: Lots 1-4;

Sec. 5: Lots 1-5, SW, S2SE;

Sec. 6: Lot 6, NESE;

Sec. 7: SENE;

Sec. 8: N2, W2SW, N2SE, SESE;

Sec. 9: E2E2, N2NW, N2SW, SESW, NWSE;

Sec. 10: Lots 1, 3, 4, W2NW, NESW, SWSW, NESE, SWSE.

1,877.70 Acres

Utah County, Utah

Salt Lake Field Office

STIPULATIONS

UT-S-155: CSU – Riparian/Wetland Habitat and Municipal And Non-Municipal Watershed Areas

UT-S-166: CSU – VRM Class II and III Areas

UT-S-265: CSU/TL – Crucial Raptor Nesting Sites

NOTICES

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-99: Regional Ozone Formation Controls

UT-LN-101: Air Quality

UT-LN-102: Air Quality Analysis

UT0812 – 224

T. 11 S., R. 9 E., Salt Lake

Sec. 17: E2E2, SWNE, W2NW;

Sec. 18: Lot 4;

Sec. 23: NWNE;

Sec. 24: W2NW, SESE;

Sec. 25: W2NE, SENE.

587.16 Acres

Utah County, Utah

Salt Lake Field Office

STIPULATIONS

UT-S-155: CSU – Riparian/Wetland Habitat And Municipal And Non-Municipal Watershed Areas

UT-S-166: CSU – VRM Class II and III Areas

UT-S-265: CSU/TL – Crucial Raptor Nesting Sites

NOTICES

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-99: Regional Ozone Formation Controls

UT-LN-101: Air Quality

UT-LN-102: Air Quality Analysis

Stipulation and Lease Notice Summary

Stipulations

UT-S-155	<p style="text-align: center;">CONTROLLED SURFACE USE – RIPARIAN/WETLAND HABITAT AND MUNICIPAL AND NON-MUNICIPAL WATERSHED AREAS</p> <p>In order to protect riparian/wetland habitat and municipal and non-municipal watershed areas, no occupancy or other surface disturbance will be allowed within 1,200 feet of live water or within 1,200 feet of wetlands as defined by the USF&WS in "Classification of Wetlands and Deep Water Habitats of the United States," 1979, page 3. This limitation does not apply to maintenance and operation of producing wells.</p> <p>Exception: If the lessee can demonstrate that operations can take place without impact to the resource being protected, an exemption to this stipulation may be granted if approved in writing by the authorized officer in consultation with the District's watershed specialist. For example, exemptions may be allowed where the riparian zone or the hydrologic influence area of phreatophytes exists less than 1,200 feet from live water.</p> <p>Modification: None</p> <p>Waiver: None</p>
UT-S-165	<p style="text-align: center;">CONTROLLED SURFACE USE – VRM CLASS II AND III AREAS</p> <p>In order to protect important visual resources in VRM Class II and III areas, activities in these areas will be located and designed in a way to meet Class II and III management criteria.</p> <p>Exception: None</p> <p>Modification: None</p> <p>Waiver: None</p>
UT-S-265	<p style="text-align: center;">CONTROLLED SURFACE USE/TIMING LIMITATION – CRUCIAL RAPTOR NESTING SITES</p> <p>In order to protect crucial raptor nesting sites, exploration, and drilling and other development activity within 0.5 mile radius of the sites will be allowed from July 16 to February 28, and not allowed from March 1 through July 15. This limitation does not apply to maintenance and operation of producing wells.</p> <p>Exception: Specific exceptions may be granted by the BLM if the proposed activity will not seriously disturb wildlife habitat values being protected. This determination will be made by a BLM wildlife habitat biologist in coordination with the Utah Division of Wildlife Resources and, if appropriate, the USF&WS. Such a determination may be made if the raptor nest in question is not active at the time of proposed activity. Quite often raptors will have alternate nesting sites available. If a raptor pair is using such an alternative site, it would be necessary to protect the inactive nest from disturbing activities for fluid mineral leasing and exploration. However, it should be noted that all eagle nests, active or inactive, are protected by the Eagle Act and must be left intact and cannot be removed from their original location.</p> <p>Modification: None</p> <p>Waiver: None</p>
UT-S-301	<p style="text-align: center;">TIMING LIMITATION – SEASONAL WILDLIFE HABITAT</p> <p>In order to protect seasonal wildlife habitat, exploration, drilling, and other development activity will be allowed only during the period from April 16 to November 30. This limitation does not apply to maintenance and operation of producing wells.</p> <p>Exception: Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the BLM.</p> <p>Modification: None</p> <p>Waiver: None</p>

Lease Notices

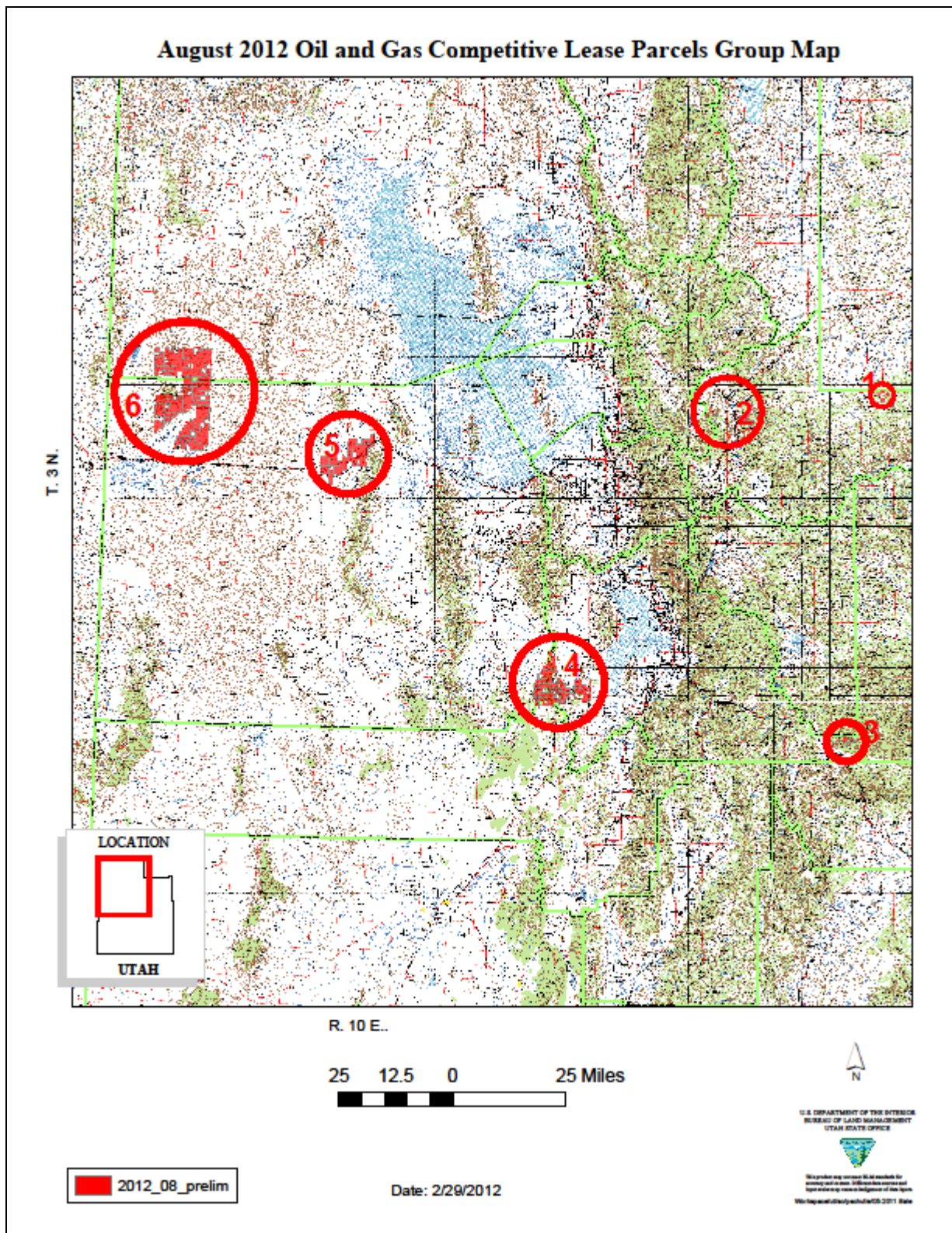
T&E 10	<p style="text-align: center;">CANADA LYNX</p> <p>Application of appropriate measures will depend on the nature of the proposed development, as well as proposed timing and location. The following avoidance and minimization measures have been designed to ensure activities carried out on the lease are in compliance with the Endangered Species Act. Integration of, and adherence to these measures will facilitate review and analysis of any submitted permits under the authority of this lease. Following these measures could reduce the scope of Endangered Species Act, Section 7 consultation at the permit stage.</p> <p>Current avoidance and minimization measures are generally adapted from the standards and guidelines listed in Chapter 7 (Conservation Measures) of the LCAS (Ruediger 2000) and include the following:</p> <ol style="list-style-type: none"> 1. Surveys will be required prior to operations unless species occupancy and distribution information is complete and available. All Surveys must be conducted by qualified individual(s), and be conducted according to protocol. 2. Based on data and information gathered in item 1, lease activities within, or in proximity to, occupied lynx habitats will require monitoring throughout the duration of the project. To ensure desired results are being achieved, minimization measures will be evaluated and, if necessary, Section 7 consultation reinitiated. 3. Avoid all surface disturbing actions within occupied denning habitat. 4. Avoid construction and surface disturbing actions in proximity to potential denning habitat during the breeding season (mid-April to July). 5. Activities involved with routine maintenance and operation will only occur during daytime hours, when lynx are least active. 6. Where technically and economically feasible, wells will be remotely monitored within lynx habitat. 7. Limit disturbance to and within suitable habitat by staying on approved access routes. 8. Limit new access routes created by the project. 9. Dirt and gravel roads traversing lynx habitat (particularly those that could become highways) should not be paved or otherwise upgraded (e.g., straightening of curves, widening of roadway etc.) in a manner that is likely to lead to significant increases in traffic volume, traffic speed, increased width of the cleared ROW, or would foreseeably contribute to development or increases in human activity in lynx habitat. When these types of upgrades are proposed, a thorough analysis of potential direct and indirect impacts to lynx and lynx habitat should be conducted. 10. Minimize impacts to habitats that support lynx prey. 11. Where technically and economically feasible, use directional drilling or multiple wells from the same pad to reduce surface disturbance and to minimize or eliminate drilling in suitable lynx habitat. <p>Additional measures may also be employed to avoid or minimize effects to the species at the development stage and will be developed and implemented in consultation with the U.S. Fish and Wildlife Service to ensure continued compliance with the Endangered Species Act.</p>
UT-LN-03	<p style="text-align: center;">CRUCIAL MULE DEER AND ELK WINTER HABITAT</p> <p>The lessee/operator is given notice that the area has been identified as containing crucial mule deer and elk winter habitat. Exploration, drilling and other development activities may be restricted from December 1 through April 15. Modifications including seasonal restrictions may be required to the Surface Use Plan of Operations in order to protect the winter habitat. This limitation does not apply to operation and maintenance of producing wells.</p>

UT-LN-07	<p align="center">CRUCIAL ELK CALVING AND DEER FAWNING HABITAT</p> <p>The lessee/operator is given notice that this lease has been identified as containing crucial elk calving and mule deer fawning habitat. No surface use or otherwise disruptive activity allowed from May 1 through June 29 within crucial elk calving and/or mule deer fawning habitat. Modifications to the Surface Use Plan of Operations may be required in accordance with section 6 of the lease terms and 43CFR3101.1-2.</p>
UT-LN-19	<p align="center">CRUCIAL PRONGHORN HABITAT</p> <p>The lessee/operator is given notice that the lands in this lease have been identified as crucial pronghorn (antelope) habitat. Modifications, including seasonal restrictions, may be required in the Surface Use Plan of Operations to protect pronghorn habitat.</p>
UT-LN-24	<p align="center">CRUCIAL MOOSE HABITAT</p> <p>The lessee/operator is given notice that the area has been identified as containing crucial moose habitat. Exploration, drilling and other development activities may be restricted from December 1 through April 15 to protect crucial moose winter range. Modifications, including seasonal/timing restrictions, may be required in the Surface Use Plan of Operations to protect moose habitat.</p>
UT-LN-40	<p align="center">GOLDEN EAGLE HABITAT</p> <p>The lessee/operator is given notice that lands in this lease have been identified as containing Golden Eagle Habitat. Modifications to the Surface Use Plan of Operations may be required in order to protect the Golden Eagle and/or habitat from surface disturbing activities in accordance with Section 6 of the lease terms, Endangered Species Act, and 43 CFR 3101.1-2.</p>
UT-LN-44	<p align="center">RAPTORS</p> <p>Appropriate seasonal and spatial buffers shall be placed on all known raptor nests in accordance with Utah Field Office Guidelines for Raptor Protection from Human and Land use Disturbances (USFWS 2002) and Best Management Practices for Raptors and their Associated Habitats in Utah (BLM 2006). All construction related activities will not occur within these buffers if pre-construction monitoring indicates the nests are active, unless a site specific evaluation for active nests is completed prior to construction and if a BLM wildlife biologist, in consultation with USFWS and UDWR, recommends that activities may be permitted within the buffer. The BLM will coordinate with the USFWS and UDWR and have a recommendation within 3-5 days of notification. Any construction activities authorized within a protective (spatial and seasonal) buffer for raptors will require an on-site monitor. Any indication that activities are adversely affecting the raptor and/or its' young the on-site monitor will suspend activities and contact the BLM Authorized Officer immediately. Construction may occur within the buffers of inactive nests. Construction activities may commence once monitoring of the active nest site determines that fledglings have left the nest and are no longer dependent on the nest site. Modifications to the Surface Use Plan of Operations may be required in accordance with section 6 of the lease terms and 43CFR3101.1-2.</p>
UT-LN-45	<p align="center">MIGRATORY BIRD</p> <p>The lessee/operator is given notice that surveys for nesting migratory birds may be required during migratory bird breeding season whenever surface disturbances and/or occupancy is proposed in association with fluid mineral exploration and development within priority habitats. Surveys should focus on identified priority bird species in Utah. Field surveys will be conducted as determined by the authorized officer of the Bureau of Land Management. Based on the result of the field survey, the authorized officer will determine appropriate buffers and timing limitations.</p>

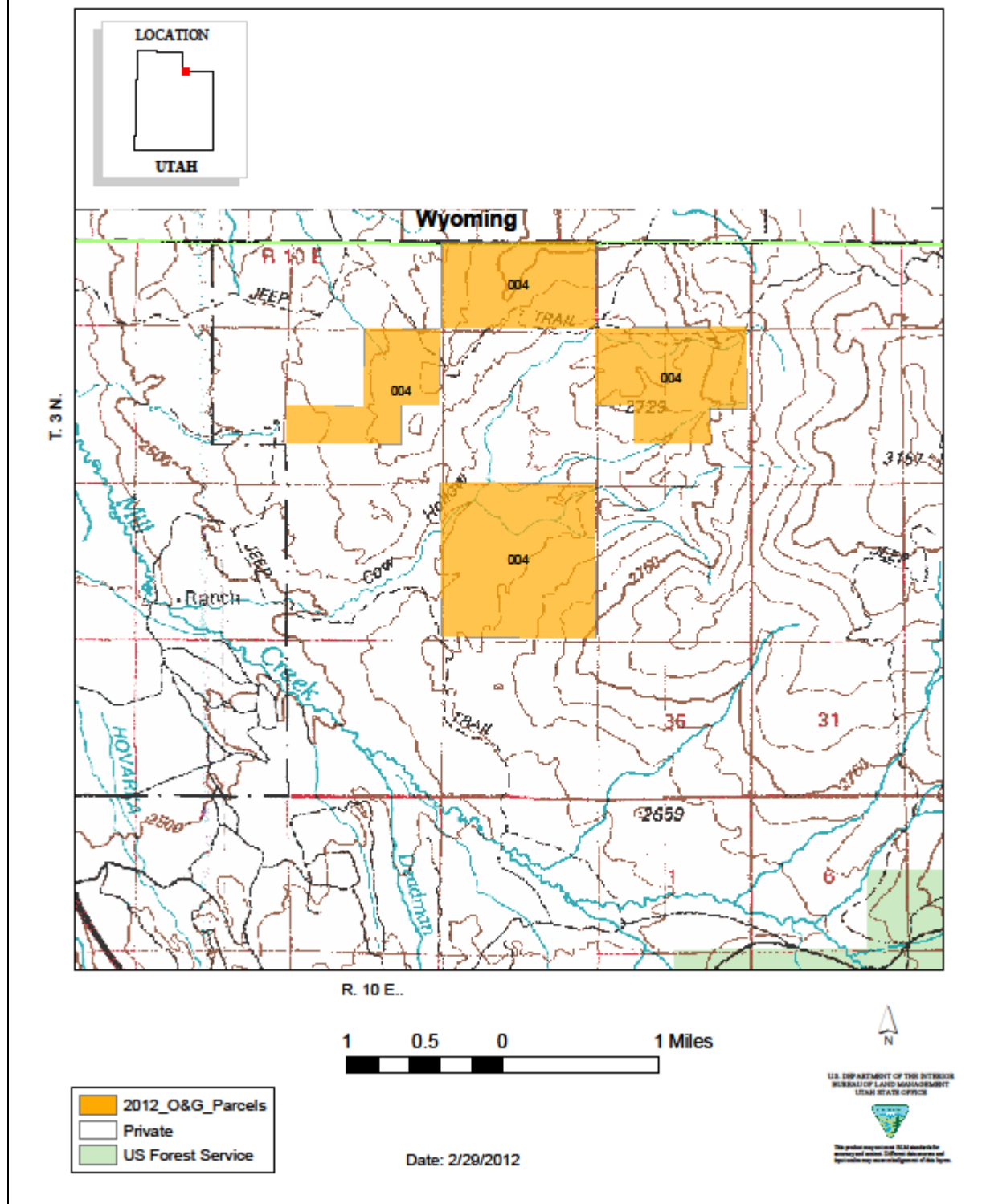
UT-LN-48	<p style="text-align: center;">CONSERVATION AGREEMENT SPECIES</p> <p>Development within this parcel could potentially impact an aquatic Conservation Agreement Species and its native habitats. To comply with the intent of the Conservation Agreement, the lessee is hereby on notice that they will need to coordinate with BLM, UDWR, and USFWS to meet special requirements needed specific to the agreement.</p> <p>For aquatic species: appropriate measures to minimize the risk of spreading aquatic exotic species (mussels, purple loosestrife, mosquito fish, and melanoides snail) should be developed in coordination with UDWR. Surface pumping for water may not be allowed depending on the sources proximity to sensitive habitat, no surface disturbance within the 100-year floodplain, and project activities should avoid changing ground and surface hydrology.</p>
UT-LN-49	<p style="text-align: center;">UTAH SENSITIVE SPECIES</p> <p>The lessee/operator is given notice that no surface use or otherwise disruptive activity would be allowed that would result in direct disturbance to populations or individual special status plant and animal species, including those listed on the BLM sensitive species list and the Utah sensitive species list. The lessee/operator is also given notice that lands in this parcel have been identified as containing potential habitat for species on the Utah Sensitive Species List. Modifications to the Surface Use Plan of Operations may be required in order to protect these resources from surface disturbing activities in accordance with Section 6 of the lease terms, Endangered Species Act, Migratory Bird Treaty Act and 43 CFR 3101.1-2.</p>
UT-LN-56	<p style="text-align: center;">DRINKING WATER SOURCE PROTECTION</p> <p>This lease (or a portion thereof) is within a public Drinking Water Source Protection zone. Before application for a permit to drill (APD) submittal or any proposed surface-disturbing activity, the lessee/operator must contact the public water system manager to determine any zoning ordinances, best management or pollution prevention measures, or physical controls that may be required within the protection zones. Drinking Water Source Protection plans are developed by the public water systems under the requirements of R309-600. Drinking Water Source Protection for Ground-Water Sources. (Utah Administrative Code). There may also be county ordinances in place to protect the source protection zones, as required by Section 19-4-113 of the Utah Code.</p> <p>Incorporated cities and towns may also protect their drinking water sources using Section 10-8-15 of the Utah Code. This part of the Code gives cities and towns the extraterritorial authority to enact ordinances to protect a source of drinking water ... "For 15 miles above the point from which it is taken and for a distance of 300 feet on each side of such stream..." Class I cities (greater than 100,000 population) are granted authority to protect their entire watersheds.</p> <p>Some public water sources qualify for monitoring waivers which reduce their monitoring requirements for pesticides and volatile organic chemicals (VOCs). Exploration, drilling, and production activities within Source Protection zone 3 could jeopardize these waivers, thus requiring increased monitoring. Contact the public water system to determine what effect your activities may have on their monitoring waivers. Please be aware of other State rules to protect surface and ground water: the Utah Division of Water Quality Rules R317 Water Quality Rules; and Rules of the Utah Division of Oil, Gas and Mining, Utah Oil and Gas Conservation Rules R649.</p> <p>At the time of development, drilling operators will additionally conform to the operational regulations in Onshore Oil & Gas Order No. 2 (which requires the protection and isolation of all usable quality waters, $\leq 10,000 \mu\text{g/L}$ Total Dissolved Solids (TDS)) and Onshore Oil and Gas Order No. 7 (which prescribes measures required for the handling of produced water to insure the protection of surface and ground water sources).</p>

UT-LN-99	<p style="text-align: center;">REGIONAL OZONE FORMATION CONTROLS</p> <p>To mitigate any potential impact oil and gas development emissions may have on regional ozone formation, the following Best Management Practices (BMPs) would be required for any development projects:</p> <ul style="list-style-type: none"> • Tier II or better drilling rig engines • Stationary internal combustion engine standard of 2g NOx/bhp-hr for engines <300HP and 1g NOx/bhp-hr for engines >300HP • Low bleed or no bleed pneumatic pump valves • Dehydrator VOC emission controls to +95% efficiency • Tank VOC emission controls to +95% efficiency
UT-LN-101	<p style="text-align: center;">AIR QUALITY</p> <p>All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2 grams of NOx per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.</p> <p>AND</p> <p>All new and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 grams of NOx per horsepower-hour.</p>
UT-LN-102	<p style="text-align: center;">AIR QUALITY ANALYSIS</p> <p>The lessee/operator is given notice that prior to project-specific approval, additional air quality analyses may be required to comply with the National Environmental Policy Act, Federal Land Policy Management Act, and/or other applicable laws and regulations. Analyses may include dispersion modeling for deposition and visibility impacts analysis, control equipment determinations, and/or emission inventory development. These analyses may result in the imposition of additional project-specific air quality control measures.</p>
UT-LN-105	<p style="text-align: center;">NATIONAL HISTORIC TRAIL – CALIFORNIA TRAIL, PONY EXPRESS TRAIL</p> <p>The lessee/operator is given notice that lands within this lease may contain elements of the California National Historic Trail or the Pony Express National Historic Trail (National Historic Trails amendment 1992 – PLO 102-328). These segments include all known and yet to be verified routes and cutoffs related to these trails. Modification of Surface Use Plan of Operations may be required as needed to protect and preserve the historic integrity of the identified trail segment. Coordination with the National Park Service may be necessary.</p>

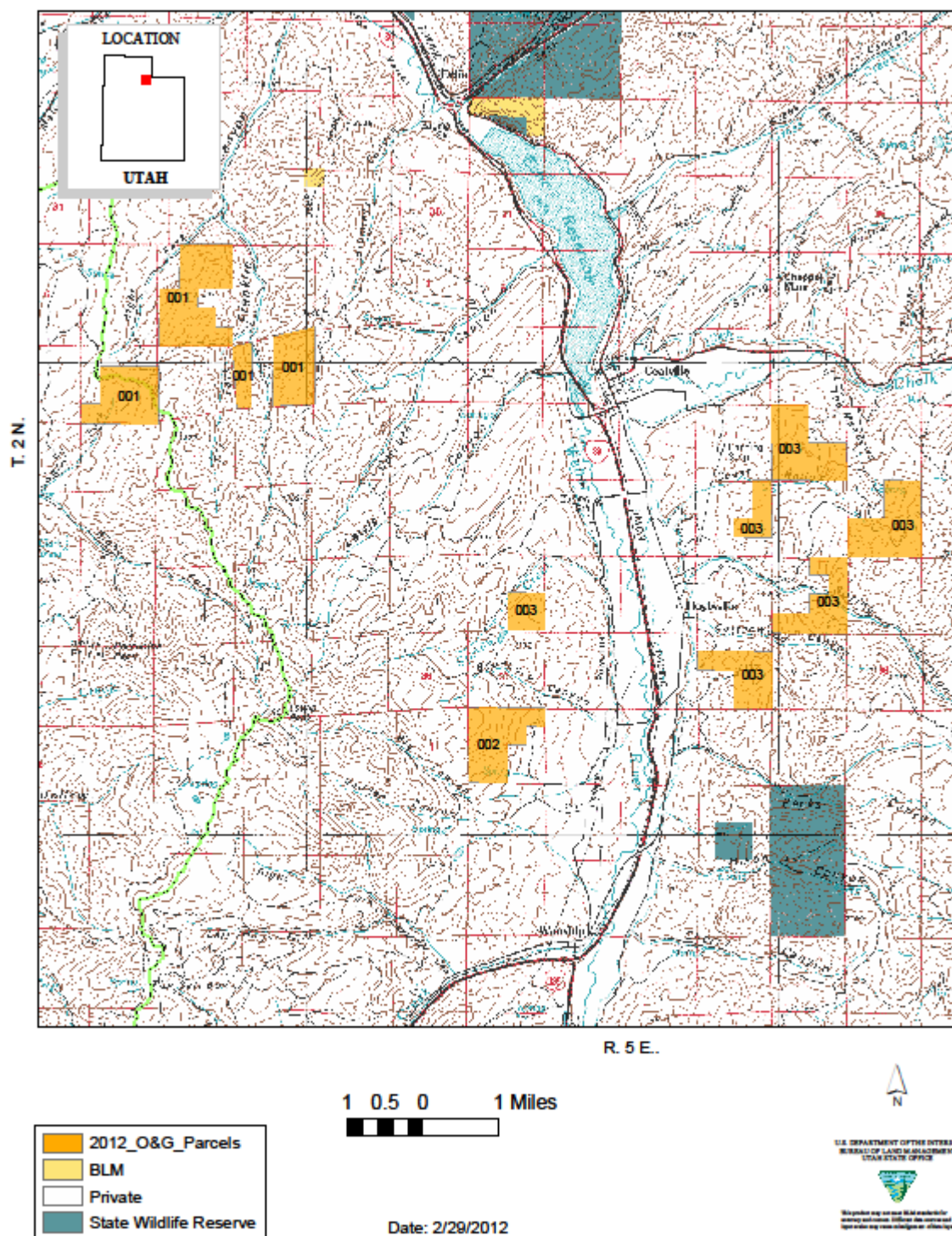
APPENDIX B – MAPS



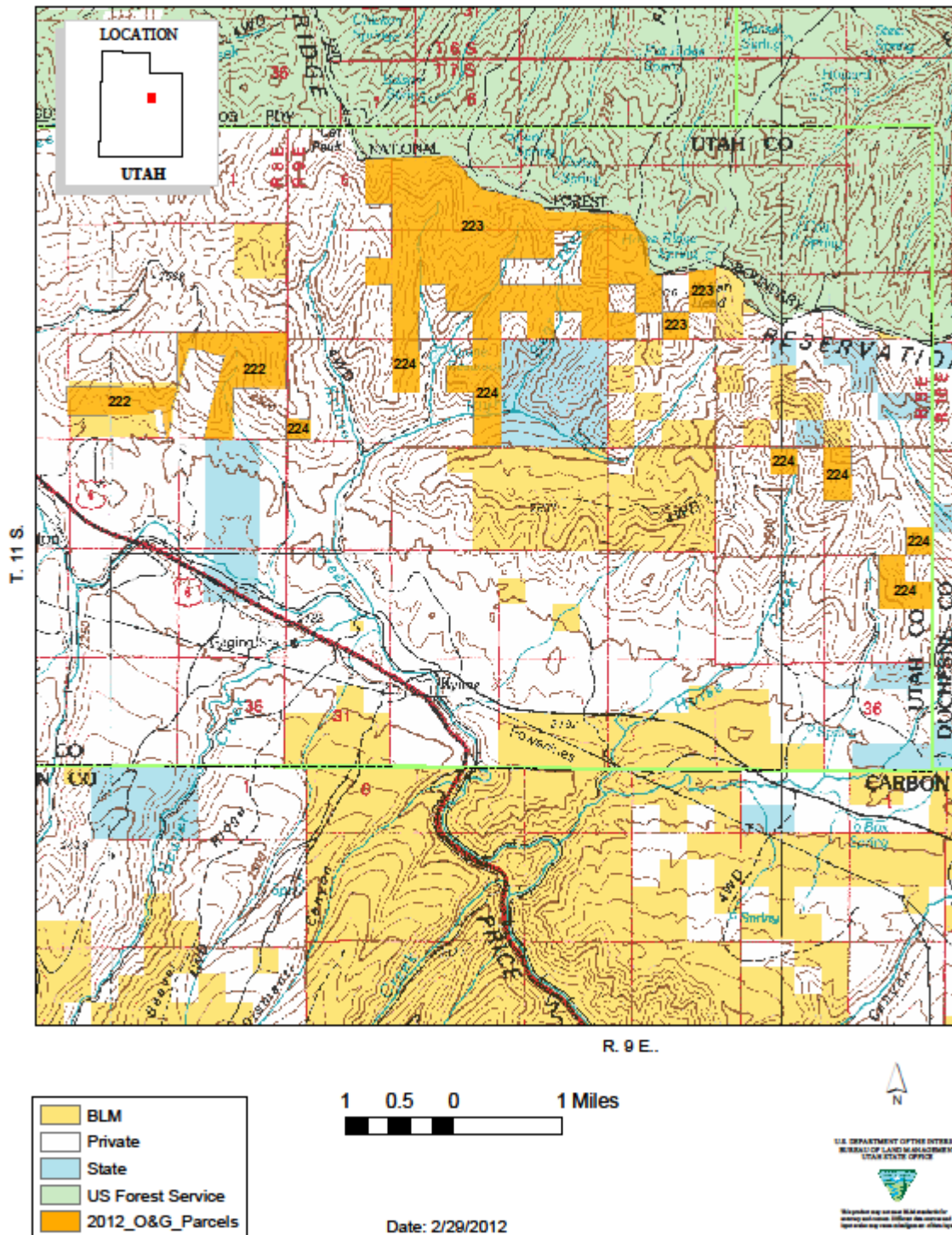
August 2012 O & Gas Competitive Lease Parcels Group 1 PA

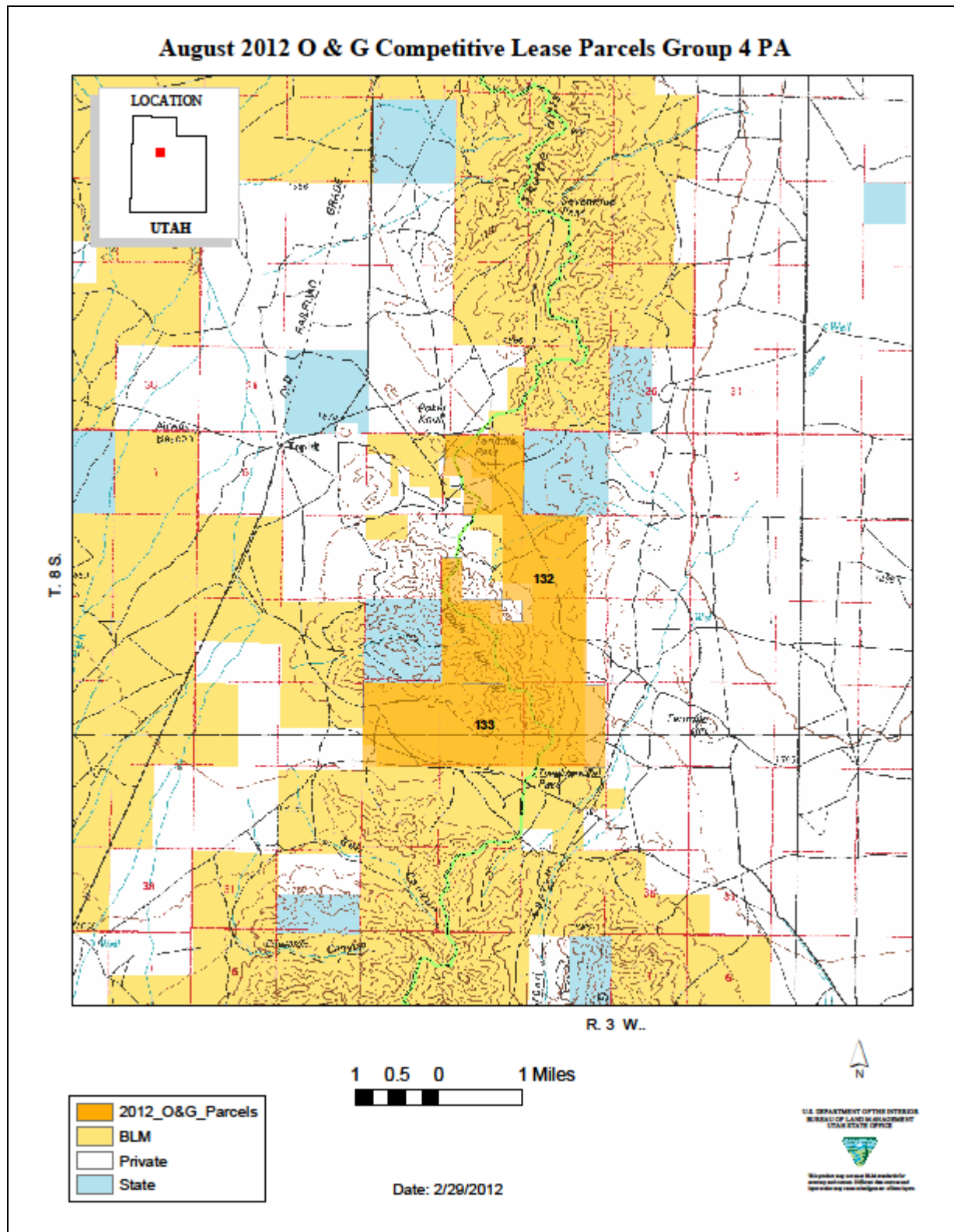


August 2012 O & G Competitive Lease Parcels Group 2 PA



August 2012 O & G Competitive Lease Parcels Group 3 PA





APPENDIX C – INTERDISCIPLINARY TEAM CHECKLIST

INTERDISCIPLINARY TEAM CHECKLIST

Project Title: August 2012 Oil and Gas Lease Sale

NEPA Log Number: DOI-BLM-UT-W010-2012-0012-EA

File/Serial Number: Not Applicable

Project Leader: Larry Garahana

DETERMINATION OF STAFF:

NP = not present in the area impacted by the proposed or alternative actions

NI = present, but not affected to a degree that detailed analysis is required

PI = present with potential for relevant impact that need to be analyzed in detail in the EA

NC = (DNAs only) actions and impacts not changed from those disclosed in the existing NEPA documents cited in Section D of the DNA form. The Rationale column may include NI and NP discussions.

Determi- nation	Resource	Rationale for Determination	Signature	Date
RESOURCES AND ISSUES CONSIDERED (INCLUDES SUPPLEMENTAL AUTHORITIES APPENDIX 1 H-1790-1)				
PI	Air Quality	<p>Leasing would have no impact on air quality. However, there is some expectation that exploration could occur. Any ground disturbing activity would have to first be authorized as a lease operation but only through additional NEPA analysis. Activities which may be authorized on these parcels subsequent to the lease sale may produce emissions of regulated air pollutants and/or pollutants that could impact air quality related values. Emissions from earth-moving equipment, vehicle traffic, drilling and completion activities, separators, oil storage tanks, dehydration units, and daily tailpipe and fugitive dust emissions could affect air quality.</p> <p>Hazardous air pollutants (HAPs) are those pollutants that are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental impacts. The EPA has classified 187 air pollutants as HAPs. Examples of listed HAPs associated with the oil and gas industry include formaldehyde, benzene, toluene, ethylbenzene, isomers of xylene (BTEX) compounds, and normal-hexane (n-hexane). There are no applicable Federal or State of Utah ambient air quality standards for assessing potential HAP impacts to human health.</p> <p>Application of lease notices UT-LN-99, UT-LN-101 and LN-UT-102 is warranted.</p>	/s/ Leonard Herr	2/27/12
NP	Areas of Critical Environmental Concern	The RMPs have not identified any ACECs within the offered parcels.	/s/ Cindy Ledbetter	2/10/12
NI	Cultural Resources	<p>A Class I literature review of the proposed lease sale indicated that the areas around each offered parcel are of sufficiently low site density that the avoidance of historic properties potentially Eligible for the National Register of Historic Places will not preclude surface development within the parcel and extraction of the leased minerals. Known cultural resources are located in such a fashion (size, density and placement) that avoidance is feasible during exploration for oil and gas resources.</p> <p>A 100% pedestrian survey has not been completed within the APE; therefore, to assure appropriate consideration of</p>	/s/ Mike Sheehan	3/29/12

Determination	Resource	Rationale for Determination	Signature	Date
		future effects from the lease sale, the BLM would add the cultural resources protection stipulation as defined in WO IM 2005-003 to all parcels. If additional, site specific resource protection measures are needed to prevent unnecessary or undue degradation; these would be prepared at the APD stage. Cultural resources assessments will be required prior to any ground disturbing activity. The proposed undertaking will have a no affect on historic properties. SHPO concurrence on this determination was received on 4/14/2012.		
NI	Greenhouse Gas Emissions/Climate Change	<p>In addition to the air quality information contained within the governing LUP, new information about greenhouse gases (GHGs) and their effects on national and global climate conditions has emerged since LUP was prepared. Without additional meteorological monitoring and modeling systems, it is difficult to determine the spatial and temporal variability and change of climatic conditions; what is known is that increasing concentrations of GHGs are likely to accelerate the rate of climate change.</p> <p>Determining GHG emissions, their relationship to global climatic patterns, and the resulting impacts is an ongoing scientific process. The BLM does not have the ability to associate a BLM action's contribution to climate change with impacts in any particular area. The technology to be able to do so is not yet available. The inconsistency in results of scientific models used to predict climate change at the global scale coupled with the lack of scientific models designed to predict climate change on regional or local scales, limits the ability to quantify potential future impacts of decisions made at this level and determining the significance of any discrete amount of GHG emissions is beyond the limits of existing science. When further information on the impacts to climate change is known, such information would be incorporated into the BLM's planning and NEPA documents as appropriate.</p> <p>It is currently not feasible to know with certainty the net impacts from leasing and any potential exploration on climate. While BLM actions may contribute to the climate change phenomenon, the specific effects of those actions on global climate are speculative given the current state of the science. Leasing the subject parcels would have no direct impacts on climate as a result of GHG emissions. There is an assumption; however that leasing the parcels would lead to some type of exploration that would have indirect effects on global climate through GHG emissions. However, those effects on global climate change cannot be determined. It is unknown whether the petroleum resources specific to these parcels are gas or oil or a combination thereof. Since these types of data as well as other data are unavailable at this time, it is also unreasonable to quantify GHG emission levels.</p>	/s/ Leonard Herr	2/10/12
NI	Environmental Justice	As defined in EO 12898, minority, low income populations and disadvantaged groups may be present within the counties involved in this lease sale. However, all citizens can file an expression of interest or participate in the bidding process (43 CFR §3120.3-2). The stipulations and notices applied to the subject parcels do not place an undue	/s/ Cindy Ledbetter	2/10/12

Determination	Resource	Rationale for Determination	Signature	Date
		burden on these groups. Leasing the nominated parcels would not cause any disproportionately high and adverse effects on minority or low income populations.		
NI	Farmlands (Prime or Unique)	While there may be some soils in the area capable of becoming prime or unique farmlands if supplemented with irrigation water, no irrigation water is present, so no prime or unique farmlands are present.	/s/ Dylan Tucker	2/27/12
NP	Fish Habitat	There are no streams within any of the parcels that are known at this time to support fish.	/s/ Traci Allen	3/2/12
NP	Floodplains	Floodplains, as defined by EO 11988, FEMA, HUD, Corps of Engineers and the LUP, are not present. The lease sale and application of stipulations/notices would not affect a county's ability to obtain and/or maintain Federal flood insurance. Through design features, BLM would avoid occupancy and modification of floodplain development. The hazard degree is low. Impacts to floodplains are not expected to reach a level that would require adding a lease notice to any of the parcels. Refer also to the riparian and wetland areas discussion.	/s/ Dylan Tucker	2/27/12
NI	Fuels/Fire Management	The implementation of appropriate reclamation standards at the APD stage would prevent an increase of hazardous fuels. Fuels and fire management will not be impacted by the lease process.	/s/ Teresa Rigby	3/2/2012
NI	Geology / Mineral Resources/Energy Production	<p>The lease process will have no effect on the mineral resources in the areas proposed for leases.</p> <p>Depending on the success of oil and gas well drilling, non-renewable natural gas and/or oil would be extracted and delivered to market. Production of oil and/or gas would result in the irretrievable loss of these resources. A RFD was prepared. Environmental impacts of the RFD were analyzed and are documented in the EA. The proposed action would not exceed the level of activity predicted in the RFD.</p> <p>The FEIS adequately addresses the impacts of oil and gas leasing. While conflicts could arise between oil and gas operations and other mineral operations, these could generally be mitigated under the regulations 3101.1-2, where proposed oil and gas operations may be moved up to 200 meters or delayed by 60 days and also under the standard lease terms (Sec. 6) where siting and design of facilities may be modified to protect other resources. Leasing and exploration would have minimal impact on mineral or energy management.</p>	/s/ Larry Garahana	2-16-12
NI	Invasive Species/Noxious Weeds (EO 13112)	<p>No impacts to invasive/noxious weeds are expected from an administrative lease. If developments are proposed in the future, additional analysis, mitigation measures, and best management practices will be required to avoid the spread of undesirable non-native plant species.</p> <p>Noxious/invasive weed species may be present on the subject parcels. Constraints, including the use of certified weed free seed and vehicle/equipment wash stations, would be applied as necessary at the APD stage as documented in filing plans and conditions of approval. Control measures would be implemented during any ground disturbing activity and documented through a PUP/PAR. Additional</p>	/s/ Anthony VonNiederhausern	2/14/12

Determination	Resource	Rationale for Determination	Signature	Date
		control and procedural information is documented in the Final Environmental Impact Statement Vegetation Treatment on BLM Lands in Thirteen Western States and associated Records of Decision. BLM Wyoming State Office, Casper Wyoming. 1991. (BLM-WY-ES-91-036-4320). If treatment occurs as part of regular operations, BMPs, SOPs and site specific mitigation are applied at the APD stage as COAs. Negligible impacts would be expected as a result of leasing and exploration.		
NI	Lands/Access	<p>The PE RMP and BREO&GA allow for oil and gas development with associated infrastructure. Oil and gas leasing is not expected to affect access to public lands. Leasing would be subject to all valid pre-existing rights.</p> <p>Any proposals for future projects within the oil and gas lease area would be reviewed on a site-specific basis and other right-of-way holders in the area would also be notified, as per regulations, when an application for right-of-way is received by this office. Off-lease ancillary facilities that cross public land, if any, may require separate authorizations. Coordination with existing ROW holders and application of SOPs, BMPs and design features at the APD stage, would ensure protection of existing rights. There are no withdrawals, right of way avoidance or, right of way exclusion areas.</p>	/s/ Mike Nelson	2/27/12
NI	Livestock Grazing	<p>Lease of the parcels will not impact livestock grazing within grazing allotments. However, there is an inherent expectation to conduct operations on each leased parcel. Any activity that involves surface disturbance or direct resource impacts would have to be authorized as a lease operation through future NEPA analysis, on a case-by-case basis. Impacts to livestock grazing may occur as a result of subsequent actions including exploration development, production, etc. Therefore, reclamation provisions/procedures including re-vegetation (utilizing appropriate seed mix based on the ecological site, elevation and topography), road reclamation, Range Improvement Project replacement/restoration (fences, cattle guards, noxious weed controls, etc) would be identified in future NEPA/Decision documents on a case-by-case basis. In addition, if any range improvement projects could be impacted by wells or associated infrastructure, wells would be moved 200 meters to avoid these impacts (43 CFR 3101.1-2). The issues identified above would be addressed further on a project site specific level if an APD is filed. SOPs, BMPs and site specific design features would be applied at the APD stage as conditions of approval. Changes to grazing permit terms and conditions, exchange of use agreements or assignments of range improvements would not occur as a result leasing or exploration.</p>	/s/ Dylan Tucker	2/27/12
PI	Migratory Birds	The following documents are incorporated: Utah Comprehensive Wildlife Conservation Strategy (CWCS), Utah Partners in Flight Avian Conservation Strategy Version 2.0. (2002), Birds of Conservation Concern (2002), Executive Order 13186: Responsibilities of Federal Agencies to Protect Migratory Birds, MOU between the USDI BLM and USFWS to Promote the Conservation and Management of Migratory Birds (4/2010), and Utah	/s/ Traci Allen	2/27/12

Determination	Resource	Rationale for Determination	Signature	Date
		<p>Supplemental Planning Guidance: Raptor Best Management Practices (BLM UTSO IM 2006-096).</p> <p>Migratory birds are protected under the Migratory Bird Treaty Act of 1918 (Executive Order 13186). MOU between the BLM and United States Fish and Wildlife Service (USFWS) (BLM MOU WO-230-2010-04) provides BLM further direction for project-level NEPA guidance for meeting MBTA conservation and compliance.</p> <p>Bald and golden eagles receive additional protections under the Bald and Golden Eagle Protection Act of 1962. Parcels UT0812-026, UT0812-027, UT0812-132, UT0812-159 have golden eagle nesting territories; therefore the following lease notice would apply: UT-LN-40: Golden Eagle Habitat. A list of other migratory birds and their habitat that could possibly be affected can be found in Chapter 3 in Table 5.</p> <p>The leasing action of the nominated parcels would not impact migratory birds. However, the intent of lease is future oil and gas exploration which may directly impact migratory birds and their seasonal habitats through development, operation and maintenance activities. This stage occurs when a lessee files an APD, outlining in detail the scope of the proposed action. At this time, impacts to migratory birds would be fully analyzed in additional environmental documents through the NEPA process. Conditions of approval would be placed on the APD to reduce impacts to migratory birds to the extent feasible when necessary. The following lease notices apply to all of the parcels: UT-LN-44: Raptors and UT-LN-45: Migratory Birds.</p>		
NI	Native American Religious Concerns	<p>The following Tribes (Confederated Tribes of the Goshute Reservation, Skull Valley Band of the Goshute Tribe, Paiute Tribe, Ute Indian Tribe, Northwestern Band of Shoshoni Nation and Eastern Shoshone) were consulted via certified letter on 3/15/2012. Correspondence is summarized in the Chapter 5 consultation table. This correspondence is part of the record. Additional consultation would be initiated at the APD stage. Native American Religious Concerns were not identified by these tribes.</p>	/s/ Mike Sheehan	3/01/12
NP	Paleontology	<p>There are no known significant paleontological resources in the proposed areas. If any are found the authorized officer needs to be contacted immediately. As warranted, a BLM-permitted paleontologist would need to be on site during any surface disturbing activities. Paleontology surveys would need to be conducted for parcels on BLM land before any exploratory or operational surface disturbance can take place. If these paleo surveys discover any substantial fossils appropriate mitigation measures would be followed to protect valuable paleontological resources.</p>	/s/ Larry Garahana	02/13/12
NI	Rangeland Health Standards	<p>Leasing of these parcels would not impact Rangeland Health Standards. However, there is an inherent expectation to conduct operation on each leased parcel. Any activity that involves surface disturbance or direct resource impacts would have to be authorized as a lease operation through future NEPA analysis, on a case-by-case</p>	/s/ Dylan Tucker	2/27/12

Determination	Resource	Rationale for Determination	Signature	Date
		<p>basis. It would be expected that reclamation procedures identified in the livestock grazing section would be required to ensure impacts to Rangeland Health Standards are minimized. The Gold Book standards also provide mechanisms to achieve Rangeland Health. These include weed control, siting considerations (e.g. well pad, contouring, road alignment), and re-vegetation.</p> <p>Design features necessary for the protection of water quality, soils, vegetation, threatened & endangered species habitat and other ecological features (rangeland health components) are incorporated. Refer also to the corresponding discussion in this checklist. Given the degree of anticipated exploration and application of SOPs, BMPs and design features applied at the APD stage as conditions of approval it is concluded that rangeland health standards would be met.</p>		
PI	Recreation	<p>Proposed action includes lease parcels that lie within the Hastings Cutoff segment of the California National Historic Trail corridor and Fivemile Pass Recreation Area which could impact recreation activities in those areas. Wildlife watching, hunting and other recreational activities are occurring.</p> <p>Application of lease notice UT-LN-105 (National Historic Trail) is warranted for parcels UT0812-152 & UT0812-159 through UT0812-161.</p>	<p>/s/ Ray Kelsey /s/ JuLee Pallette</p>	<p>2/28/12 3/03/12</p>
NP	Sage Grouse Habitat	The nominated parcels are not in occupied greater sage grouse habitat. If the lessee decides to move forward to the APD stage, impacts to greater sage-grouse and their habitat would be evaluated at that time to ensure that conditions have not changed.	/s/ Traci Allen	2/27/12
NI	Socio-Economics	The nominated parcels are generally located in rural areas with little or no commercial and residential development. Impacts to socio-economics are not expected to occur as a result leasing or exploration. Oil and gas leases on Federal lands contribute to local government revenues through mineral lease payments. In Utah, these payments consist of bonus lease payments, annual lease rentals and royalties based on production. Of the total amount of mineral lease payments remitted to BLM, approximately 50 percent is returned to the state. The state then remits approximately one half of these payments back to the counties in the form of direct appropriations and grants and loans for specific projects funded by the Permanent Community Impact Board. Bonus payments are one-time payments to the Federal government for a leased parcel of BLM land for a ten-year period. These payments contribute to state and local economies because a proportion of the payments are disbursed to state and local governments. Annual rental payments - \$1.50 per acre for the first 5 years and \$2.00 per acre each subsequent year - would also contribute to state and local government revenues. Future production on the proposed leases, should any occur, could contribute additional revenues to local governments in the form of production royalties. The lease action, itself, however, produces no such royalties.	/s/ Cindy Ledbetter	2/10/12

Determination	Resource	Rationale for Determination	Signature	Date
NI	Soils	Leasing the parcels, per se, would not affect soils. However, there is some expectation that drilling and development could occur, at which time additional NEPA would be conducted. SOPs, BMPs and site specific design features including reclamation would be applied at the APD stage as COAs.	/s/ Dylan Tucker	2/27/12
NP	Threatened, Endangered, Candidate or Special Status Plant Species	There are no known species of this status for this category of plants within these parcels.	/s/ Roddy Hardy	2/27/12
PI	Threatened, Endangered, Candidate or Special Status Animal Species	Based on occurrence data and habitat types, parcel UT0812-004 is within mapped lynx habitat. Although lynx have been documented as moving through Utah, data and research indicate that lynx habitat within the parcels remains unoccupied. A majority of the parcel is classified as lynx habitat; therefore the lynx lease notice will be attached to this parcel. Other sensitive species may also be found on all leases therefore the Utah sensitive Species lease notice (UT-LN-49) has been attached to all parcels. Columbia spotted frog habitat may be present in parcel UT0812-003 and habitat suitability surveys would take place if development would occur.	/s/ Traci Allen	2/27/12
NI	Wastes (hazardous or solid)	Many of the wastes associated with oil and gas production are exempt from Federal Hazardous Waste regulations. Non-exempt hazardous wastes, if handled properly should not be a risk to human health or the environment. The companies should have emergency contingency plans which address how to respond to a hazardous substance release including reporting to federal, state agencies, and the National Response Center. Hazardous or solid wastes would not be created or stored at the leasing stage. BMPs, SOPs and design features would be applied at the APD stage as conditions of approval. The construction, drilling, completion, testing, and production of an oil and gas well produce waste products including drilling and completion fluids and produced water. Standard operating procedures required by regulation, BMP, and COAs attached to approved APD would mitigate impacts and ensure proper containment and disposal of wastes generated from oil and gas activities. Impacts are not expected to occur as a result leasing or exploration.	/s/ Tim Ingwell	2-17-12
PI	Water Resources/Quality (drinking/surface/ground)	Lease parcels 001, 003 and 152 occur within Drinking Water Source Protection Zones (DWSPZs). Lease notice UT-LN-56 would be applied to these parcels.	/s/ Dylan Tucker	2/27/12
NI	Wetlands/Riparian Zones	BLM Utah Riparian Management Policy (2005) would apply as warranted. The act of leasing, per se, would not affect wetlands and riparian zones. However, there is some (low) expectation that drilling and development could occur, at which time additional NEPA would be conducted.	/s/ Dylan Tucker	2/27/12
NP	Wild and Scenic Rivers	Resource is not present.	/s/ Ray Kelsey	2/28/12
NP	Wilderness/WSA	Resource is not present.	/s/ Ray Kelsey	2/28/12

Determination	Resource	Rationale for Determination	Signature	Date
PI	Wildlife Excluding Special Status Species	<p>The leasing action of the nominated parcels would not impact crucial big game habitats; however, a lease is permitted with the intent for future oil and gas exploration. This stage occurs when a lessee files an APD, outlining in detail the scope of the proposed action. At this time, impacts to big game would be fully analyzed in additional environmental documents through the NEPA process. The exploration, development, operation and maintenance of oil and gas activities do have the potential for directly impacting big game and their habitats. Stipulations and lease notices discloses known potential restrictions for future authorizations and the following apply below.</p> <p>The nominated proposed lease parcels UT08012- 023 to UT08012-222 are within UDWR designated crucial yearlong pronghorn habitat. Lease notice UT-LN-19 Crucial Pronghorn Habitat would apply to all of these parcels.</p> <p>Parcels UT0812-001 and UT0812-003 have the following lease notice UT-LN-03: Crucial Mule Deer and Elk Winter Range and Lease Notice UT-LN-07 for mule deer fawning.</p> <p>Parcels UT0812-003 and UT0812-004 have lease notice UT-LN-24 Crucial Moose Winter Range.</p> <p>Parcels UT0812-001 and UT0812-004 (sect. 22) have lease notice UT-LN-03 Crucial Elk Winter Range.</p> <p>Parcel UT0812-004 has lease notice UT-LN-07 for elk calving habitat.</p>	/s/ Traci Allen	2/27/12
NI	Woodland / Forestry	Large overstory plant communities are present. Woodland production or restriction zones are not present. BMPs, SOPs and site specific mitigation are applied at the APD stage as COAs. Impacts are not expected to occur as a result leasing or exploration.	/s/ Roddy Hardy	2/27/12
NI	Vegetation Excluding Special Status Species	At this stage (lease sale) there are no impacts to vegetation resources. Impacts (both direct and indirect) would occur if a lease is developed in the future. The potential impacts would be analyzed on a site-specific basis at the APD stage prior to development. SOPs, BMPs and site specific design features applied at the APD stage including reclamation, as COA would address soil resource issues not already analyzed in the PE RMP, BREO&GA and the SLFO EAR.	/s/ Roddy Hardy	2/27/12
NI	Visual Resources	Leasing parcels in the proposed action would not create significant new surface disturbances in VRM Class 4 areas. Effects to visual resources would be consistent with Class IV VRM objectives which allow for major modifications of the existing landscape and high/strong visual contrasts that dominate the landscape and the focus of viewer attention. However, impacts still need to be minimized. Upon reclamation of any drilling activities, visual resources would be improved greatly, provided reclamation is designed to restore the characteristic line and color elements present in the area.	/s/ Ray Kelsey /s/ JuLee Palette	2/28/12 3/02/12
NI	Wild Horses and Burros	Leasing of parcels would not impact wild horses within the Cedar Mountain HMA. SOPs, BMPs and site specific design features would be applied at the APD stage as conditions of approval. Changes to herd numbers or use	/s/ Cindy Ledbetter	3/01/12

Determi- nation	Resource	Rationale for Determination	Signature	Date
		areas are not expected to occur as a result leasing or exploration.		
NP	Lands with Wilderness Characteristics	Parcels carried forward for leasing in the proposed action do not fall within areas that meet either size or naturalness criteria for wilderness character.	/s/ Ray Kelsey /s/ JuLee Palette	2/28/12 3/02/12

FINAL REVIEW:

Reviewer Title	Signature	Date	Comments
Environmental Coordinator	<i>/s/ Cindy Ledbetter</i>	<i>5/22/2012</i>	--
Authorized Officer	<i>/s/Jill Silvey</i>	<i>5/22/2012</i>	--

APPENDIX D – RESPONSE TO PUBLIC COMMENTS

Number	Comment	Response
National Park Service – National Trails Intermountain Region		
1	<p>These sales parcels are in the vicinity of Hastings Pass and the Grayback Hills, which are high-potential sites, and there's a long HP segment out there, too. Would these oil and gas leases allow modification of the roads, which would change the character of the recreational experience? Can we get a stip to keep the structures out of view of the road, where feasible? Or does that come after they have the lease and are preparing to go forward with development?</p>	<p>BLM has applied lease notice UT-LN-105 (National Historic Trails) to parcels UT0812-152 and UT0812-159 through UT0812-161.</p> <p>BLM has determined that the trail near the I-80 corridor, Aragonite plant, and Energy Solutions was already visually impacted to a point where leasing could go forward in this area with avoidance criteria for intact trail segments.</p> <p>In the event that an actual APD is filed, BLM would initiate the NEPA process, including consulting with the NPS on best management practices for the trail segments. As identified in the Gold Book, environmental best management practices are imposed as conditions of approval. These BMPs can include (among others) requirements or design features associated with access roads, well & facility sites, timing, lights & sounds, reclamation, monitoring, and coloring of equipment/facilities. Refer also to comment #6 and its corresponding response.</p>
Oregon California Trails Association		
2	<p>The Pristine Hastings Cutoff Trail crosses the following parcels in Tooele County:</p> <ul style="list-style-type: none"> • UTO812 - 161, T. 1 S., R. 11 W., Salt Lake Sec. 5. • UTO812 - 160, T. 1 S., R. 11 W., Salt Lake Secs. 3 and 4. • UTO812 - 159, T. 1 S., R. 11 W., Salt Lake Secs. 11, and 12. • UTO812 - 147, T. 1 S., R. 10 W., Salt Lake Sec. 9. 	Refer to response to comment 1.
Southern Utah Wilderness Alliance		
3	SUWA recommends that the BLM consult with the Environmental Protection Agency (EPA).	BLM did not consult with EPA on the August 2012 lease sale. Due to the small RFD and unlikely possibility of issues associated with this EA, it was not required or recommended by the interagency air quality MOU or BLM Utah's air resource management strategy.
4	SUWA encourages the BLM to invite members of the interested public to participate in the parcel site visits.	<p>BLM acknowledges the point made by SUWA and will consider inviting interested members of the public to participate in the parcel site visits.</p> <p>As per WO IM 2010-117, the primary purpose of the site visit is to facilitate BLM's identification of current site conditions, improve interagency dialogue and a precursor to alternative development.</p> <p>As per this IM, at III 6, BLM coordinates with stakeholders on the parcel review and NEPA analysis. At section III 7, interested groups will be kept informed of field office leasing and NEPA activities and invited to comment during the NEPA compliance process.</p> <p>BLM is carefully balancing the need to provide an</p>

		<p>open forum with our agency partners, private landowners and Native American Tribes. Some of the possible information shared with the BLM cannot be disclosed in the presence of the general public.</p> <p>As per the section 6.3.2 of the NEPA Handbook (H-1790-1) and WO IM 2010-117, BLM is specifically providing comment period.</p>
5	<p>SUWA notes that the EA is silent with regard to whether any of the parcels are located within greater sage-grouse habitats as delineated by the breeding bird density maps developed by Doherty (2010).</p>	<p>In compliance with the WO IM 2012-043, BLM Utah by policy is deferring parcels (or portions thereof) that occur within occupied greater sage-grouse habitat. The deferral is dependent upon completion of the national programmatic sage-grouse planning amendment process.</p> <p>In preparing this EA, BLM consulted with the UDWR and did not find parcels that contained mapped greater sage-grouse habitat.</p> <p>As per WO IM2012-043, the preliminary priority (PPH) and preliminary general (PGH) habitat link, occupied habitat refers to all habitats vital for the life stages of the greater sage-grouse – nesting, wintering and transitional ranges. The Doherty delineation is a subset of the more inclusive occupied habitat mapping that has been delineated and mapped by the Utah Division of Wildlife Resources. As of this document, the most current preliminary occupied greater sage-grouse habitat mapping was received on 9/26/2012. Please note that these polygons are PPH and PGH and are subject to change depending upon future investigation. As such, for the purposes of this EA, BLM has deferred leasing of all the associated acreages within occupied sage-grouse habitat.</p>
6	<p>SUWA maintains that the EA does not show whether or not it is consistent with the National Trails System Act or the Comprehensive Management and Use Plan, Final EIS, California National Historic Trail and Pony Express National Historic Trail.</p>	<p>BLM has reviewed the National Park Service's Comprehensive Management and Use Plan Final Environmental Impact Statement (EIS) California National Historic Trail and Pony Express National Historic Trail (1999). As a point of clarification, this document was prepared by the NPS at an administrative and programmatic level. BLM was not a cooperating agency in its preparation and it did not issue a corresponding Record of Decision. The administrative objectives found on pages 26 and 27 of this EIS, outline NPS concerns regarding trail administration, protection, interpretation and visitor experience. BLM remains committed to these components in the management of the California National Historic Trail and contacted the National Trails – Intermountain Region Office Superintendent on May 9, 2012. BLM, NPS and other Federal agencies cooperatively manage the nation's trails under a 2006 MOU.</p> <p>As stated in this EIS (page 3), the need for this plan is to comply with the requirements of the</p>

		<p>National Trails System Act and to address management issues and concerns related to administration and management, resource protection, interpretation and visitor experience, uses of the national historic trails, and site development and marketing. It continues and states that when existing plans affecting historic trails are amended or when new plans are drafted, it is recommended that the provisions of this document be incorporated in developing protection strategies. Places identified in that plan as “High Potential Historic Sites” and “High Potential Route Segments” (HPSS) are the Federal Protection Components (public lands) along the congressionally designated route - where the BLM applies the most protective measures. An inventory may be required, depending on where the proposal is in relation to HPSS, to determine possible adverse impacts.</p> <p>Additional information is summarized in Section 5.3.1. Changes to the EA were made accordingly.</p>
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